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**The *tongshi* education reform in Chinese
research-intensive universities:
A case study**

Qijuan Shen

PhD
The University of Edinburgh
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Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.



27.08.2018

Abstract

Since the late 1990s, an educational reform movement has been initiated in many research-intensive universities of mainland China to change their Soviet-style undergraduate curriculum which is described as being overspecialised. The Chinese term *tongshi* has been used to name the reform, which, in very brief terms, means general and interconnected knowledge. In existing studies, *tongshi* education is regarded as a Chinese localised version of liberal education which has been mainly anchored in American universities. The *tongshi* education reform, in this sense, is a part of the worldwide trend of university curriculum transformations where a renewed interest in liberal education has been observed, with a particular emphasis on interdisciplinarity, generic skills and global citizenship to prepare students for the global knowledge economy.

After being implemented for more than two decades, there is still a lack of empirical research on the contextual rationale, process and implication of the *tongshi* education reform. Academic staff members' and students' experiences have remained largely unexplored. Moreover, very limited discussion has taken place on the distinctiveness of *tongshi* education compared to the ongoing reforms of liberal education in other parts of the world.

This thesis is based on a case study of the *tongshi* education reform in a selected Chinese research-intensive university, Zhejiang University. Data were collected in the form of university documentation and from semi-structured interviews with three policymakers, twenty-five teachers and other staff members, and twelve students. Thematic analysis was employed to interpret the data. In addition, phenomenography was utilised to construct a comprehensive conception of *tongshi* education, drawing on academic staff members' and students' perceptions, to contribute to existing discussions on the idea of *tongshi* education.

The study highlights a number of key findings. First, the *tongshi* education reform is driven by several interweaving factors at institutional, national and

global levels. The reform at Zhejiang University, while introducing the idea and practice of Western liberal education, is also underpinned by: (i) the institutional aspiration of promoting a shared identity as a comprehensive university among its departments which had been previously separate; (ii) the national government's policy of building world-class universities; and (iii) the increasing international connection and cooperation on and off the campus.

Second, the *tongshi* education reform has changed not only the curriculum but also the organisational structure and management system. The process of policy development, in which academic staff members and students believed themselves to be inadequately involved, is led by senior institutional administrators. The political authority, especially the University Committee of Chinese Communist Youth League, run by the Communist Party of China, has exerted important influences on *tongshi* education through its control on student extracurricular activities and residence life.

Third, four qualitatively different conceptions of *tongshi* education were identified from interviews with academic staff members, respectively highlighting: (i) knowledge breadth through developing students' general understandings of a wide range of subjects; (ii) students' social responsibility and critical understandings of human history and society; (iii) crossdisciplinarity and interdisciplinarity for the purpose of academic advancement; and (iv) students' intellectual virtues such as critical thinking, open-mindedness, integrity and self-reflectiveness. The four conceptions reveal the rich meanings of *tongshi* education beyond the policymakers' intentions. However, because of problems in teaching practice such as limited resources and oversized classes, there has been some lack of success in achieving the desired learning outcomes and in communicating the value of *tongshi* education to the student body. Therefore, many students have complained that their learning experience of *tongshi* education was fragmented and ineffective.

Fourth, reviewing within the global context, *tongshi* education in Chinese research-intensive universities is distinctive from other practices of liberal

education manifested in the following three dimensions. First, due to a strong political-ideological control by the state, it is challenging to foster critical thinking and democratic citizenship through *tongshi* education. Second, because the reform has been initiated by and mainly practised in research-intensive universities, *tongshi* education is, in many cases, confused with intensive academic training for research excellence, while its value in fostering morality and culture is overlooked. Third, the question of how to teach Chinese, Western and other traditions and cultures to promote students' understanding of cultural diversity and global citizenship, has remained unexamined due to the lack of a shared understanding of *tongshi* education among different stakeholders within the University.

There is still a long way to go for *tongshi* education in China to promote students' democratic citizenship and critical thinking on social and cultural topics, because of the relatively strong political control from the state (Law 2013; Law 2006). This case study suggests that there are still some hopes—however fragile—contributed by teachers' efforts, increasing international communication, and a continuous discussion on the idea of *tongshi* education and university education. The research calls for more in-depth studies to explore the rationales, strategies and implications of *tongshi* education in Chinese universities to engender better understandings and practices.

Lay summary

What and how to teach in universities? This question has been asked in the fast-changing world today where we are confronted with new challenges in the economy, politics, international relationships and sustainable development. Some scholars have observed that, in different parts of the world, a lot of universities have been changing their undergraduate curricula with a renewed interest in liberal education. Liberal education originates in ancient Greece and Rome and has long been practised in many American universities. It seeks to empower students by giving them broad knowledge, transferable skills such as critical thinking, and a strong sense of citizenship for democratic societies.

Some research-intensive universities in China started curriculum reforms and introduced a form of liberal education in the late 1990s. The Chinese term *tongshi* has been used to name the reform, which, in brief terms, means general and interconnected knowledge. In this study I investigate why and how liberal education has been practised in Chinese universities, by looking into one case in detail: the *tongshi* education reform at Zhejiang University. By analysing policy documents and interviews with different groups of participants—senior administrators, teachers and other staff members, and students—I explore the following four questions.

- Why and how was the *tongshi* education reform initiated at Zhejiang University?

The *tongshi* education reform at Zhejiang University has been led by senior administrative leaders, who determined its goals and strategies. According to their design, a large number of courses covering a wide range of subjects have been added into the students' timetables. Students have also been allowed more freedom to decide what to learn according to their own interests and plans. The political authority, especially the University Committee of Chinese Communist Youth League, run by the Communist Party of China, has exerted important influences on *tongshi* education through its strengthened control on students' activities and residence life out

of the classroom. In the meantime, teachers and students have reported that they have been inadequately involved in the process of policy making.

The *tongshi* education reform has not only changed the curriculum, but also the organisational structure and management of the University. According to documents and policymakers, there are three reasons for the reform at Zhejiang University. First, the Chinese government encourages its universities to promote teaching and research performance to a world-class level. Therefore, Chinese universities have been observing and seeking to emulate prestigious Western universities. Second, Zhejiang University uses this institutional-wide reform as an opportunity to strengthen the bond among its departments which used to be separate. Third, since the early 2000s, Zhejiang University has been sending a large number of students abroad every year for visiting, exchange programmes and postgraduate education; thus its curriculum has changed to follow those of Western universities.

- How do teachers understand the meaning of *tongshi* education and practise it in their teaching?

There is a lack of a common understanding of *tongshi* education among teachers. Four different opinions have been found about what and how to teach *tongshi* education courses. First, some teachers believe that *tongshi* education means introducing a wide range of subjects into the students' timetable to promote their general understanding of broad knowledge. Second, some teachers argue that *tongshi* education should focus on students' social responsibility and critical understandings of human history and society. Third, for some teachers, *tongshi* education offers a good opportunity for students to make connections across different subjects, which should benefit their specialism learning. Fourth, some teachers point out that *tongshi* education should foster students' intellectual virtues such as critical thinking, open-mindedness, integrity and self-reflectiveness. The four ideas reveal the rich meanings of *tongshi* education which go beyond the policymakers' intentions. However, teachers also report that problems

such as limited resources and oversized classes have caused difficulties in teaching.

- How do students report their understandings and experiences of *tongshi* education?

Many students complain that their learning experiences in *tongshi* education are fragmented and ineffective. First, the learning activities of *tongshi* education are usually not cumulative. Students regard *tongshi* education as a distraction from, rather than preparation for or a supplement to specialism learning. Second, there has been a lack of out-of-class support to help students make study and career plans. *Tongshi* education grants students a greater degree of freedom to decide what to learn, but many of them feel confused without professional advice.

- What are the characteristics of *tongshi* education as compared with the liberal education practised in other parts of the world?

Because the historical, political and social contexts in China are very different from those in the United States or other Western countries, *tongshi* education in Chinese universities is distinctive from other practices in liberal education. First, due to strong political-ideological control by the state, it is challenging to foster critical thinking and democratic citizenship through *tongshi* education. Second, because the reform has been mainly practised in research-intensive universities, sometimes participants—administrators, teachers and students—confuse *tongshi* education with intensive academic training. Third, there has not been enough effort by policymakers and teachers to explore the question of how to teach Chinese, Western and other traditions and cultures in *tongshi* education. Such an exploration is necessary to prepare students for globalisation and cultural diversity

In this study, I explore both the problems and the good practices of *tongshi* education at Zhejiang University, with the hope of contributing to the discussion of what and how to teach at today's universities. There is still a long way to go for *tongshi* education in China in promoting students' democratic citizenship and critical thinking on social and cultural topics, because of the relatively strong political control by the state. I argue that

there are some hopes—however fragile—of achieving these ends through teachers' efforts, increasing international communication, and an open discussion on the idea of *tongshi* education and university education.

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Table of Contents

List of figures and tables	xix
Note on transliteration	xxi
Abbreviations	xxiii
Glossary of Chinese terms	xxv
Chapter 1 Introduction	1
1.1 Prelude	1
1.2 An introduction to <i>tongshi</i> education in Chinese universities	3
1.3 Putting <i>tongshi</i> education in a global context.....	9
1.4 Purposes, framework and methods of the research	12
1.5 Structure of the thesis	15
Chapter 2 A brief history of Chinese higher education	19
2.1 Introduction	19
2.2 From 500 BCE to 1860 CE: traditional Chinese education	21
2.2.1 Confucianism and other influential schools of philosophy	21
2.2.2 The Imperial Examinations System	24
2.2.3 Independent academies: <i>shuyuan</i>	27
2.2.4 The problem of traditional Chinese education: the Needham Question ..	28
2.3 From 1860 to 1949: early explorations of modernisation	29
2.3.1 1860-1911: the late Qing regime	30
2.3.2 1911-1927: development of modern universities	33
2.3.3 1927-1949: debates on the purpose of higher education	36
2.4 From 1949 to 1978: the socialist experiments	39
2.4.1 1949-1966: an overall restructuring of higher education	39
2.4.2 1966-1976: The Cultural Revolution.....	43
2.5 From 1978 till now: the reform stage.....	44
2.5.1 1977-1989: recovering from the Cultural Revolution	45
2.5.2 Development of higher education since the 1990s: mass higher education, marketisation, and internationalisation.....	48
2.6 Summary	54
Chapter 3 Literature review and research rationale.....	55
3.1 Introduction	55
3.2 What is ' <i>tongshi</i> ' in Chinese and why is this term used in this study? .	56

3.2.1 The usages of the term ' <i>tongshi</i> '	56
3.2.2 The literal meanings of ' <i>tong</i> ' and ' <i>shi</i> '	58
3.2.3 The relevant concepts: 'liberal education', 'liberal arts education', 'general education' and 'education for cultural quality'	62
3.3 Definitions of ' <i>tongshi</i> education' in existing studies	68
3.3.1 Definition 1: <i>tongshi</i> education is to cultivate desirable qualities of students.	69
3.3.2 Definition 2: <i>tongshi</i> education is to promote students' knowledge breadth.....	70
3.3.3 Definition 3: <i>tongshi</i> education is to promote students' understanding of human culture by reading selected classical texts.....	71
3.3.4 Definition 4: <i>tongshi</i> education is to offer a common learning experience for all Chinese college students in the global era.	71
3.3.5 A comparison of the four definitions	72
3.4 The <i>tongshi</i> education reform: strategies and outcomes.....	74
3.4.1 Three types of <i>tongshi</i> education reform.....	74
3.4.2 Teaching and learning in <i>tongshi</i> education: problems, reasons and suggestions.....	76
3.5 Grasping the complexity of <i>tongshi</i> education: the knowledge gap, research rationale and questions	79
3.5.1 An in-depth case study of the <i>tongshi</i> education reform.....	79
3.5.2 Exploring the perceptions and experiences of academic staff members and students	83
3.5.3 Research questions	85
3.6 Summary	86
Chapter 4 Methodology and methods.....	89
4.1 Introduction.....	89
4.2 The framework for research	89
4.3 How the site of the case study was selected	93
4.4 Data collection and fieldwork.....	98
4.4.1 Documents by the national government and Zhejiang University.....	99
4.4.2 Interviews: sampling and access	103
4.5 Data analysis.....	108
4.5.1 Data organisation	108
4.5.2 Transcription and translation	109
4.5.3 Thematic analysis	110
4.5.4 Phenomenography.....	111
4.6 Reflexivity and research ethics.....	113

4.6.1 Trustworthiness of a qualitative case study	113
4.6.2 Researcher identity: an insider and outsider	116
4.6.3 Ethical considerations	118
4.7 Summary	119
Chapter 5 The <i>tongshi</i> education reform at Zhejiang University: policy development and implementation	121
5.1 Introduction	121
5.2 The story of Zhejiang University	121
5.2.1 1897-1914: an imperial college	122
5.2.2 1927-1949: a national comprehensive university	123
5.2.3 1949-1998: four separate institutions	124
5.2.4 1998-the present: re-merging and development as an elite research-intensive university	125
5.3 The <i>tongshi</i> education reform at Zhejiang University: aim, strategy and process	129
5.3.1 1995: the national project of 'Education for Cultural Quality' as the predecessor of <i>tongshi</i> education	129
5.3.2 2002: <i>tongshi</i> education being explored through a growing body of 'public elective courses'	132
5.3.3 2006: a new curriculum structure highlighting <i>tongshi</i> education	136
5.3.4 2008: changes in organisational structure and management to enhance the curriculum reform	144
5.4 Discussion: the rationale and process of the <i>tongshi</i> education reform at Zhejiang University	150
5.4.1 Rationale of the <i>tongshi</i> education reform: the global-national-local dynamics	150
5.4.2 The process of policy development and implementation: tensions between administrative, political and academic groups	152
5.5 Summary	155
Chapter 6 Academic staff members' experiences and perceptions of <i>tongshi</i> education	157
6.1 Introduction	157
6.2 Academic staff members' participation in <i>tongshi</i> education: who and why	158
6.2.1 How teachers are recruited for <i>tongshi</i> courses	159
6.2.2 Who teaches <i>tongshi</i> courses: gender, disciplinary background and academic rank	161
6.2.3 What changes are resulted from the <i>tongshi</i> education reform on academic work: academic staff members' perceptions	169

6.3 Four conceptions of <i>tongshi</i> education by academic staff members	172
6.3.1 A phenomenographic approach to the conceptions of <i>tongshi</i> education	172
6.3.2 Conception 1: <i>tongshi</i> education is subsidiary to specialism education and is aimed at students' general understanding of a wide range of academic disciplines	176
6.3.3 Conception 2: <i>tongshi</i> education is complementary to specialism education and focuses on citizenship education	179
6.3.4 Conception 3: <i>tongshi</i> education supplements specialism education through cross-disciplinary and interdisciplinary learning	182
6.3.5 Conception 4: <i>tongshi</i> education is the foundation of specialism education and highlights the student's liberal development and promotion of intellectual virtues	185
6.4 A discussion on the conceptions of <i>tongshi</i> education	189
6.4.1 Comparing teachers' conceptions with the policymakers' design	189
6.4.2 Reasons behind the different conceptions	192
6.4.3 The hierarchy of the four conceptions: to identify the key idea of <i>tongshi</i> education	195
6.4.4 Comparing teachers' conceptions with the existing definitions of <i>tongshi</i> education made by researchers	196
6.5 Summary	197
Chapter 7 Students' experiences and understandings of <i>tongshi</i> education	199
7.1 Introduction	199
7.2 Students' learning experiences of <i>tongshi</i> courses	200
7.2.1 <i>Tongshi</i> elective courses	201
7.2.2 <i>Tongshi</i> lower-division courses	208
7.2.3 <i>Tongshi</i> compulsory courses	211
7.2.4 A comparative summary of students' experiences of the three sub-categories of <i>tongshi</i> courses	214
7.3 Students' general experiences of <i>tongshi</i> education	216
7.3.1 The student's freedom in deciding what to learn	216
7.3.2 Transferring from <i>tongshi</i> education to specialism education: preparation or distraction	219
7.3.3 The students' union and students' associations: a strong political-ideological control	223
7.4 Students' understandings of <i>tongshi</i> education	226
7.5 Seeking a coherent curriculum for <i>tongshi</i> education: some suggestions	229
7.6 Summary	235

Chapter 8 The distinctiveness and potential of <i>tongshi</i> education	237
8.1 Introduction	237
8.2 Liberal education in modern universities worldwide: why and how? ..	239
8.2.1 The rationale for the global trend of liberal education	239
8.2.2 Liberal education in modern universities: challenges and strategies	241
8.3 The distinctiveness of <i>tongshi</i> education in the Chinese research-intensive university	245
8.3.1 <i>Tongshi</i> education as a part of the larger transformation of the Soviet-style system: the coordination between political, academic and economic forces	246
8.3.2 China's hierarchical higher education system: research-intensive universities as the elite group	250
8.3.3 The discontinuity with old traditions and various influences from other modern nations on China's modern education	252
8.4 <i>Tongshi</i> education in an illiberal context: fragile hopes?	257
8.5 Summary	259
9. Conclusion	261
9.1 Introduction	261
9.2 Summary of the main findings and discussions	262
9.3 Knowledge contribution and limitations of this study	272
9.3.1 Knowledge contribution	272
9.3.2 Limitations	275
9.4 Implications for policy development, teaching practice and future research	277
9.4.1 Implications for future research	277
9.4.2 Suggestions for policy development and teaching practice	279
9.5 Epilogue	280
References	283
Appendices	309
Appendix 2-A Statistics of Chinese higher education system: 1978-2016	309
Appendix 2-B Sources of revenue for Chinese higher education: 1996-2012 ..	311
Appendix 4-A The Email to the Undergraduate Administrative Department (UAD) of Zhejiang University for permission of fieldwork (English translation)	312
Appendix 4-B Informed consent letters (English translation)	313
Appendix 4-C Interviews and participants of this study	314
Appendix 4-D A piece of translated interview transcript and initial coding	320

Appendix 5-A Colleges, schools, and departments of Zhejiang University	338
Appendix 5-B The subgroups of <i>tongshi</i> courses at Zhejiang University	340

List of figures and tables

Figures

Figure 1. 1 The term ' <i>tongshi</i> ' in Chinese ideogram: simplified and traditional	1
Figure 2. 1 The six administrative regions of China in the 1950s.....	42
Figure 2. 2 Education system in China since the 1980s	46
Figure 2. 3 Higher education institutions and student population in China: 1900s-1980s.....	47
Figure 2. 4 The development of higher education in China: 1990-2015	49
Figure 2. 5 The main funding resources of higher Education: 1998-2012	51
Figure 2. 6 The hierarchy of Chinese higher education institutions	53
Figure 3. 1 The relevant terms in the discussion of <i>tongshi</i> education.....	63
Figure 3. 2 Different orientations of scholars' definitions of <i>tongshi</i> education	73
Figure 3. 3 Three types of <i>tongshi</i> education reform.....	75
Figure 4. 1 Framework for research: the interconnection of worldviews, design and research methods	90
Figure 4. 2 Research questions, methods, and data sources.....	91
Figure 4. 3 The locations of some important cases of <i>tongshi</i> education in mainland China	97
Figure 4. 4 The process of data organisation and analysis	110
Figure 5. 1 Undergraduates of Zhejiang University 2015: by disciplinary areas.....	126
Figure 5. 2 Full-time academic staff members of Zhejiang University 2015: by disciplinary areas.....	126
Figure 5. 3 Populations of undergraduates, postgraduates and academic staff members at Zhejiang University: 2003-2015	127
Figure 5. 4 Graduates of Zhejiang University enrolled into postgraduate programmes	136
Figure 5. 5 The curriculum structures at Zhejiang University: before and after 2006.....	138
Figure 5. 6 The number of undergraduate students at Zhejiang University going abroad for international projects (including Hong Kong and Taiwan)	140
Figure 5. 7 The undergraduate education at Zhejiang University: before and after 2008.....	145
Figure 5. 8 The governance structure of undergraduate education.....	148
Figure 5. 9 The policy process of <i>tongshi</i> education at Zhejiang University	152
Figure 6. 1 Teachers for <i>tongshi</i> courses at Zhejiang University 2014- 2015: academic rank.....	167
Figure 6. 2 The referential and structural aspects of the conceptions of <i>tongshi</i> education	173

Figure 6. 3 Conception 1: Subsidiary	175
Figure 6. 4 Conception 2: Complementary.....	175
Figure 6. 5 Conception 3: Supplementary	175
Figure 6. 6 Conception 4: Foundational.....	175
Figure 6. 7 Sub-categories of <i>tongshi</i> courses and conceptions of <i>tongshi</i> education.....	191
Figure 7. 1 <i>Tongshi</i> education at the different levels of curriculum	231
Figure 8. 1 The three arguments for the value of liberal education: proposed by Van Der Wende (2014)	240
Figure 8. 2 The triangle of coordination in higher education (Clark, 1983, p.143).....	247
Figure 8. 3 Different flows of change: higher education in China and Britain	247

Tables

Table 4. 1 <i>Tongshi</i> education reforms at Chinese research-intensive universities	96
Table 4. 2 A selected list of institutional documents on <i>tongshi</i> education at Zhejiang University	101
Table 4. 3 The relevant governmental policy documents on higher education	102
Table 4. 4 Dividing academic staff members into thirteen groups for sampling	105
Table 5. 1 Public compulsory courses: themes and contents	131
Table 6. 1 Teacher recruitment for <i>tongshi</i> courses at Zhejiang University.	160
Table 6. 2 Fulltime academic staff members at Zhejiang University in 2015	162
Table 6. 3 Teachers for <i>tongshi</i> courses at Zhejiang University 2014-2015.....	163
Table 6. 4 Disciplinary distribution of teachers for <i>tongshi</i> elective course in 2014-2015.....	165
Table 6. 5 The four conceptions of <i>tongshi</i> education by academic staff members at Zhejiang University.....	176
Table 6. 6 The four conceptions of <i>tongshi</i> education and their holders.....	190
Table 6. 7 The four conceptions of <i>tongshi</i> education by two dimensions... ..	195
Table 7. 1 Student experience of the three categories of <i>tongshi</i> course: a summary	214
Table 8. 1 Different themes of <i>tongshi</i> elective courses: a comparison between Zhejiang University and Peking University	256

Note on transliteration

This thesis employs the *pinyin* system of transliteration for all names, including those that are commonly known in their Wade-Giles (or other) transliteration in English. The principal exception to this, is the names of two universities: Peking University and Sun Yat-sen University, because, in their own official websites and documents, these two universities adopt the Wade-Giles transliteration instead of *pinyin*.

Abbreviations

AAC&U – American Association of Colleges and Universities

BERA –British Educational Research Association

CCP – Chinese Communist Party

CCYU – Chinese Communist Youth League

EGEH – Ethical Guidelines for Educational Research (by the British Educational Research Association)

HEI – Higher education institutions

ICT – Information and communications technology

IES – Imperial Examinations System

MoE – Ministry of Education (of People's Republic of China)

NHEEE – National Higher Education Entrance Examination (of China)

NPC – National People's Congress (of China)

OECD – Organisation for Economic Cooperation and Development

PDoCCP – The Publicity Department of the Chinese Communist Party

PRC – People's Republic of China

SC – State Council (of People's Republic of China)

UAD – Undergraduate Administrative Department (of Zhejiang University)

UCoCCP – University Committee of the Chinese Communist Party (of Zhejiang University)

UCoCCYL – University Committee of the Chinese Communist Youth League (of Zhejiang University)

USSR – Union of Soviet Socialist Republics

UTEA – University Tongshi Education Association (of China)

Glossary of Chinese terms

Baihua (白话) – Modern Chinese language

Boya (博雅) – Being knowledgeable and cultured

Buqi (不器) – The quality of a scholar or an educated person, being not limited with one skill (a concept from the *Analects*)

Daxue (大学) – University

Dao (道) – Way; the natural order of the universe in the context of traditional Chinese philosophy and religion

Gaokao (高考) – The National Higher Education Entrance Examination in China

Gezhi (格致) – To attain knowledge through investigation (the translation for ‘natural science’ in the late 19th century in China)

Guozijian (国子监) – A type of higher education institution in ancient China

Jiaoyu (教育) – Education

Junzi (君子) – A person with moral authority and accomplishment

Keju (科举) – The Imperial Examinations System in ancient China

Kexue (科学) – Science

Li (理) – Pattern; the principles of the natural and social world

Pinyin (拼音) – The phonetic system for Mandarin language

Putong (普通) – Being general and ordinary

Qiushi (求是) – To seek truth

Shuyuan (书院) – academies in ancient China

Sishuwujing (四书五经) – the orthodox Confucian texts

Taixue (太学) – A type of higher education institution in ancient China

Tongcai (通才) – Generalist

Tongren (通人) – Generalist

Wenyan (文言) – The written form of ancient Chinese language

Wuwei (无为) – Non-action or non-doing (an important concept in Daoism)

Ziyou (自由) – Freedom, liberty

Chapter 1 Introduction

1.1 Prelude

Tongshi education has been changing research-intensive universities in mainland China since the early 2000s in the areas of curriculum, pedagogy, administrative work, and organisational structure. ‘*Tongshi*’ is the *pinyin*¹ form of the Chinese phrase which is shown in the figure below.



Figure 1. 1 The term ‘*tongshi*’ in Chinese ideogram: simplified and traditional²

Tongshi in very brief terms means general and interconnected knowledge (Zhang 2012). ‘*Tongshi* education’ refers to the education that gives students interconnected knowledge, and the term has also been used as a Chinese translation of the Western ‘general education’, ‘liberal education’ and ‘liberal arts education’ by some scholars and policymakers.³

Having become increasingly popular in different types of higher education institution during the last two decades, *tongshi* education was firstly initiated in several top Chinese research-intensive universities in order to change the narrowly specialised Soviet-style curriculum (Chen et al. 2008; Lai 2002). It is agreed by many scholars that the idea of *tongshi* education comes from various cultural, political, social and educational sources (Chen 2006; Li 1999;

¹ The *pinyin* system is the official romanisation system for Standard Chinese in mainland China and to some extent in Taiwan.

² Traditional Chinese characters are currently used in Hong Kong, Macau, and Taiwan, while in mainland China, the government of the People's Republic of China (PRC) issued simplified Chinese characters in the 1950s and 1960s, which have since been used there as the standard form. In general, there is no major difference between the two forms in grammar, pronunciation or meaning.

³ The romanisation form for ‘education’ is ‘*jiaoyu*’ in Mandarin. In this thesis, I use ‘*tongshi* education’ instead of ‘*tongshi jiaoyu*’, because the English word ‘education’ is widely accepted as the standard translation for ‘*jiaoyu*’, while ‘*tongshi*’ has been translated in different ways by scholars. By using ‘*tongshi* education’ instead of choosing from translations such as ‘general education’ and ‘liberal education’, I want to highlight the richness, distinctiveness, and complexity of *tongshi* education, which is rooted in its Chinese context.

Lu 2016a). On the one hand, it is rooted in the ancient Chinese educational tradition of cultivating virtuous scholar-officials, bureaucrats, and mandarins (Huang 2006). On the other hand, *tongshi* education shares many features with general education and liberal education, which are mainly anchored in American universities (Chen 2006; Li 1999; Lu 2016b; Stone 2011). Some scholars have also pointed out that *tongshi* education shows Chinese universities' efforts to seek international recognition by learning from the well-known universities in the West, which are driven by the government policy of building 'world-class universities' (Liao 2012; Zhang 2012).

How has *tongshi* education been transforming curriculum and pedagogy in Chinese universities? What impacts does it have on the student experience? Is *tongshi* education bringing a new idea of higher education? Is *tongshi* education going to revive Chinese educational tradition in modern universities? These questions are far from being answered although *tongshi* education has been a lively topic of discussion among scholars and policy makers for more than two decades.

As a former student with experience of *tongshi* education, I have always been wondering about the influences of *tongshi* education on my own and my peers' development. Now, as a PhD student and a researcher in education, I am inspired to explore these questions in an attempt to contribute to better understandings of, and practices in, *tongshi* education. The process of exploration is even more interesting because of a cross-cultural perspective. Based on Chinese data, the thesis was written in English, and it required me, a native Chinese speaker, to step out of the familiar cultural context and to give the familiar subjects a second thought.

In this introductory chapter, I will first give a snapshot of the *tongshi* education reforms in different Chinese universities so that readers can catch a glimpse of the different strategies of *tongshi* education (Section 1.2). I will then argue for the importance of reviewing *tongshi* education in a global context, where similar university curriculum changes have been observed in other parts of the world (Section 1.3). In section 1.4, I will briefly introduce the purposes and

framework of this study, provide a summary of the literature review identifying the knowledge gap, address the research questions, and outline the methodology. The chapter will end with a plan for the chapters that follow (Section 1.5).

1.2 An introduction to *tongshi* education in Chinese universities

Tongshi education was initiated as institutional reform in several top research-intensive universities in China in the early 2000s, such as Peking University in Beijing and Fudan University in Shanghai. Since then, many other research-intensive universities have also been exploring *tongshi* education. According to the statements on their official websites, most Chinese research-intensive universities in the national elite leagues ('21/1 Project Universities', and '98/5 Project Universities'⁴) have introduced, or at least claimed to introduce, *tongshi* education. Moreover, since the late 2000s, an increasing number of teaching-oriented universities and colleges have also claimed to have introduced *tongshi* education into the curriculum.

In November 2015, the University Tongshi Education Association (UTEA) was established by four research-intensive universities – Peking University, Tsinghua University, Fudan University, and Sun Yat-Sen University – to promote communication and cooperation in *tongshi* education across institutions. Another six research-intensive universities joined the Association in 2016, including five universities from mainland China⁵ and one from Hong Kong – The Chinese University of Hong Kong. The number of Association members has risen to forty-four in 2017, including a few teaching-oriented universities. The Association holds annual conferences for universities to share their ideas, strategies and problems in *tongshi* education.

⁴ '21/1 Project Universities' and '98/5 Project Universities' were selected by the Ministry of Education (MoE) of China, under the government policy of building world-class universities. Altogether there are 116 universities.

⁵ The five universities are: Zhejiang University, Nanjing University, Wuhan University, Xiamen University, and Chongqing University.

Started as a spontaneous experiment in individual universities, *tongshi* education has now also become a national agenda in recent government documents. In *The Thirteenth National Five-year Plan on Education* by the State Council of China (2017), and *The Outline of The Thirteenth National Five-year Plans on Economy and Society* by the National People's Congress (NPC) (2017), *tongshi* education is listed as one of the important strategies to improve the quality of university education. The national government encourages universities to explore new curriculum models which integrate *tongshi* education and specialism education. This move probably indicates that *tongshi* education will become an approach implemented in more universities and colleges in the near future (Lu 2016b; Zhong and Wang 2017).

Models of *tongshi* education vary in different universities (Lu 2016b; Pang 2009; Sun 2013). I will give a brief introduction to several cases to show their commonalities and differences. These cases were selected based on existing studies and reports, because I believe that most of the pioneering and outstanding cases of *tongshi* education reform have been noticed by scholars in some way. To avoid missing important cases, I also reviewed official websites of the research-intensive universities which are members of national elite leagues and the UTEA. *Tongshi* education in the following three universities were selected as important cases: Peking University, Sun Yat-Sen University, and Fudan University.

- **Peking University**

Peking University was founded in 1898. Located in the capital city, Beijing, it is China's first national university, and is regarded as the 'icon of cultural leadership' (Hayhoe et al. 2011) because of its important role in a range of cultural events in modern Chinese history. In 2016, Peking University had 15,260 full-time undergraduate students, including 3,608 international students, 15,088 postgraduate students studying for a masters degree, and 10,401 doctoral students. The university had 7,079 academic staff members and five main academic sectors in the areas of the humanities, social sciences, natural sciences, information and engineering sciences, and medicine (Peking

University 2016). Peking University enjoys an excellent national reputation in a wide range of disciplines, particularly in humanities, basic sciences and social sciences.

Peking University was the birthplace of numerous cultural and educational reforms, and *tongshi* education is one of them. In 2000, Peking University started to introduce a group of elective courses to all its students, which were later named '*tongshi* courses', with the purposes 'to introduce a broadened curriculum, to encourage students to explore different knowledge domains' (Peking University 2006). *Tongshi* courses were developed by different academic schools and departments at the request of the Academic Affairs Office at the university level, and they were categorised into five different fields: (i) mathematics and natural sciences, (ii) social sciences, (iii) philosophy and psychology, (iv) history, and (v) languages, literature, and the arts.

Students are asked to select a certain number of courses from each field to develop a general understanding of different disciplines (Peking University 2000). In 2010, a set of '*tongshi* core courses' was added to *tongshi* courses at Peking University which highlighted students' understanding of society through these four themes: (i) Chinese civilisation and tradition, (ii) Western civilisation and tradition, (iii) modern society and its challenges, and (iv) humanities, arts and nature (Peking University 2010). According to the University documents, *tongshi* education is 'to lay the common foundation of knowledge, ideas and values for Peking University's undergraduate students, through reading classic texts and discussing basic problems' (Peking University 2015).

Moreover, since 2000, Peking University has developed a *tongshi* programme for a selected group of students, named the Yuanpei Programme.⁶ The Yuanpei Programme enrolls approximately 150 students each year who have performed excellently in the National Higher Education Entrance

⁶ The 'Yuanpei Programme' was named after the most well-known president of Peking University, Cai Yuanpei, who held the presidency in Peking University during the late 1910s to 1920s.

Examination.⁷ Instead of a prescribed curriculum, the Yuanpei Programme provides a greater degree of flexibility and freedom, with the aim to promote students' well-rounded development and academic performance (Peking University, 2006). It encourages students to spend more time on basic subjects in arts and humanities or natural sciences instead of specialised vocational training (Peking University 2000). Unlike other students in Peking University, who need to decide their specialities before enrolment and are assigned a prescribed timetable of the courses they are required to take, the Yuanpei students spend their first two years learning various basic subjects, before moving on to more specialised study. The Yuanpei Programme also highlights students' academic development, such as involvement in research projects and training in academic writing (Wang 2014).

The two strategies of *tongshi* education at Peking University, i.e., introducing a group of *tongshi* courses into students' timetables, and developing a *tongshi* programme for a selected group of students, have been followed by many other universities – albeit in slightly different ways.

- **Sun Yat-Sen University**

According to the introduction on its official website, Sun Yat-Sen University was founded in 1924, and named after the legendary Nationalist leader Sun Yat-Sen (Sun Yat-sen University 2015). It now has three campuses in two cities in Guangdong Province, South of China. Sun Yat-Sen University has twenty-five schools covering the humanities, social sciences, natural sciences, technical sciences, medical science and management. Its academic strengths are in the arts and humanities, and social sciences such as philosophy, Chinese language, literature, history and law. In 2016, Sun Yat-Sen University had 32,327 full-time undergraduate students, 12,725 full-time postgraduate students for masters degrees, 5,302 full-time doctoral students, and 3,567 academic staff members.

⁷ The National Higher Education Entrance Examination (NHEEE), or *gaokao*, is the national standard examination, through which higher education institutions enrol candidates annually, based on a student's score in the examination.

Sun Yat-Sen University started to offer a set of *tongshi* courses to its students in 2009, which were categorised into the following fields: (i) Chinese civilisation and literature, (ii) global perspectives, (iii) science and technology in economics and society, and (iv) the basic reading of humanities. Every student is required to take one or two courses from each group (Stone 2011). We can see that Sun Yat-Sen University's categorisation of *tongshi* courses is to some extent similar to Peking University's *tongshi* core courses, highlighting students' understanding of Chinese and global society.

Sun Yat-Sen University also has a special programme which started in 2008, with an annual enrolment of around 120 students: the Boya Programme. The term '*boya*' in Chinese means being erudite, according to *The Oxford Chinese-English Dictionary* (Kleeman and Yu 2010), and it has also been used as a translation for the Western 'liberal arts education' (Stone 2011). Different from the Yuanpei Programme at Peking University, the Boya Programme is characterised by an emphasis on the humanities and social sciences, especially on studying a collection of Chinese and Western classical texts. In their first two years, students are required to learn ancient Greek or Latin and the ancient Chinese language; and to read a large number of Chinese and Western classics in the original languages, such as the *Classic of Poetry* (Shijing), *Records of the Grand Historian* (Shiji), and *Homeric Hymns*. In the following two years, the students spend more time on reading and writing in academic English, and start to learn more about modern topics such as the Constitution of the United States and English modern literature (Sun Yat-sen University 2017). The Sun Yat-sen University has built a regular cooperation with St. John's College, a liberal arts college in the United States (US), to promote the Boya Programme.

One of the policymakers and administrative leaders of the Boya Programme, Professor Gan Yang, stated that the reform was inspired by the Western Great Books Programmes (Gan 2006). The programme seeks to foster social leaders and academics in humanities and social sciences, through intensive reading, group discussion, research projects, academic writing, and social service learning (Stone 2011). The programme also tries to incorporate

classroom lectures with discussion seminars supported by doctoral students. While such a model is adopted in many Western universities, it was still new to Chinese teachers and students.

The model of *tongshi* education at Sun Yat-Sen University is relatively unique among Chinese universities, due to its emphasis on the study of classical texts in the humanities and social sciences. A few universities have started to learn from Sun Yat-Sen University very recently, such as Chongqing University in Southwest China, where a similar Boya Programme was developed in early 2017.

- **Fudan University**

Fudan University is located in Shanghai, East China. Established in 1905, it is now one of the leading universities in China, with academic strength in the humanities and social sciences (Lu 2017). In 2016, it had 12,881 full-time undergraduate students, 16,929 masters and doctoral students, and 2,859 academic staff members (Fudan University 2017).

In 2006, Fudan University introduced *tongshi* core courses which were grouped in six themes: (i) Chinese civilisation and literature, (ii) philosophy and critical thinking, (iii) dialogues of civilisations and global horizons, (iv) scientific and technological development, (v) natural environment and sustainable development, and (vi) arts and aesthetics. The University requires every student to take two courses from each theme (Lu 2017).

Apart from the curriculum changes, Fudan University also highlights the importance of student residence life in enhancing *tongshi* education. In 2008, Fudan University established five residential colleges for its undergraduate students, which are named '*shuyuan*', a traditional Chinese academy where students lived and learned together with teachers. The *shuyuan* at Fudan University are, to some extent, similar to the residential colleges in traditional English Universities such as Oxford University and Cambridge University (Sun 2013). However, *shuyuan* do not manage students' formal curricula, and mainly focus on organising activities such as public lectures, innovative competitions and student networking. Each *shuyuan* is staffed by mentors and

counsellors to support students, some of which are academic staff members. For example, some professors who have retired from academic work are hired to serve full-time or part-time on advising students. The policymakers believe that the residential *shuyuan* will enhance the well-rounded development of every student through residence life and various learning activities (Stone 2011). The strategy of transforming student residence life has been learned by some other Chinese universities, as an important part of *tongshi* education.

Through the above three cases I have tried to present a brief introduction to *tongshi* education in Chinese universities. Both similarities and differences can be observed, in terms of the themes of *tongshi* courses, the design of *tongshi* programmes, and the changes in student residence life. Despite variations between different universities, in its basic sense, *tongshi* education explores the potential of university education beyond narrowly-specialised and vocationally-oriented learning, which used to be the mainstream of Chinese university education under the influence of the Soviet model (Chen 2010b). The decline of the Soviet model since the 1980s has created opportunities to revisit the ideas, purposes, content and organisation of university education, through referring back to Chinese traditional culture and learning from Western universities.

1.3 Putting *tongshi* education in a global context

The *tongshi* education reform was initiated in Chinese research-intensive universities where a growing influence of globalisation has been observed (Liao 2012; Wende 2014). From the existing literature, I identified two interrelated arguments about the growing influence of globalisation on higher education, which give a justification for the reasons why it is necessary to review the *tongshi* education reform within a global context.

First, accompanying China's economic reform which opened its border (at least partly) to the global market since 1978, the discourse of 'preparing for the global knowledge era' (Bie and Yi 2014, p.103) has been highlighted in national and local policies on education. Like in many other countries around the world, the so-called knowledge economy, marked by the globally

competitive need for technological innovation with new products and processes that develop from the research community (Rooney et al. 2005; Westlund 2006), has prompted renewed concern for Chinese universities about what and how to teach, to empower students to engage in lifelong learning to keep pace with the fluidity of labour markets, and to equip the country with industries based on the creation, circulation and consumption of information rather than material goods (Altbach 2013; Florida 2006).

Under such circumstances, the *tongshi* education reform should be understood as Chinese universities' efforts on exploring effective educational models which can not only promote individual students' well-rounded development, but also serve the national demands on economic development and human resources in order to thrive in global competitions (Shahjahan and Kezar 2013). The idea, practice and implication of *tongshi* education, therefore, should be judged according to the multifaceted reform agenda.

Second, Chinese universities have become increasingly internationally-focused in their policy developments (Bie and Yi 2014). Although international communication is not a new phenomenon in the history of higher education, many scholars argue that the current patterns of global interconnectivity and interdependence are significantly different, shaped by the profound technological developments in transport, communication and data processing that have altered the concepts of time and space (Altbach and Knight 2007; Marginson and Sawir 2005; Popkewitz and Rizvi 2009). In many parts of the world, internationally focused universities are now becoming 'global enterprises' (Blackmore and Kandiko 2012), or 'global universities' (Wildavsky 2010, p.1), competing across borders for staff, students, research funding and prestige (Cantwell and Maldonado-Maldonado 2009; Douglass 2005; Liu and Metcalfe 2015; Vidovich 2004).

Universities have been placed in the global positioning systems and frameworks that are being created by soft governing arrangements such as the global ranking systems and measurement tools (Hazelkorn 2009; Simons et al. 2009; Wildavsky 2010). According to Altbach (2004), this system is

unequal, with the prestigious Western universities in the centre, and universities from developing countries in the peripheries.

As a result, the governments in many developing and non-English speaking countries, have made financed efforts to create so-called world-class universities. Chinese research-intensive universities, which are considered to be national centres of research and teaching innovation, are seeking international recognition through learning and adapting from Western universities as models of excellence (Altbach 2009; Altbach and Umakoshi 2004; Chen 2012; Yang 2014). Therefore, the process of the *tongshi* education reform could serve as a good example to explore the dynamics of globalisation and localisation, or, the 'global-national-local dynamics' (Marginson and Rhoades 2002, p.367), underlying university curriculum policy developments.

Moreover, it has been observed that many universities in different parts of the world have been conducting curriculum reforms as an important strategy for achieving their institutional goals and aims (Blackmore and Kandiko 2012; Pegg 2013; Shay 2015). One prominent change that is noticed by some scholars is that the US-style liberal education has been becoming internationally popular⁸ (Vidovich et al. 2012; Wende 2014). Some Chinese scholars believe that *tongshi* education is one of these cases of the introducing of liberal education into China (Liao 2012; Lu 2016b; Zhang 2012), which has barely been discussed by Western scholars. By comparing *tongshi* education with the similar changes observed in other parts of the world, we could develop a better understanding of, whether the current curriculum transformations are 'suggestive of a possibility of the emergence of new paradigms for liberal education' (Vidovich et al. 2012).

⁸ As will be further discussed in Chapter 3, the relationship between 'liberal education' and 'general education' and the usage of the two terms have long being debated in English literature yet a consensus has not been reached among scholars. In this thesis, I understand 'general education' as one specific approach to the long-standing tradition of 'liberal education'. On the one hand, general education echoes the main aims of liberal education, i.e., fostering free minds; on the other hand, it highlights issues such as interdisciplinarity and employability. The general education model in particular refers to the curriculum model originally employed in many American universities, which allows students to take courses from different departments in addition to specialism learning.

1.4 Purposes, framework and methods of the research

Discussions on *tongshi* education have been active since the early 2000s. Scholars explore the meanings, strategies, and influences of *tongshi* education in Chinese research-intensive universities. However, there is still a lack of in-depth case studies which investigate the contextual processes and implications of *tongshi* education reform, which can provide a comprehensive understanding of organisational complexity by examining actors' behaviour in its real-life context (Yin 2014). This thesis is based on a case study of *tongshi* education in one Chinese research-intensive university, with two particular aims.

First, I will explore how the *tongshi* education reform is shaped by many-layered factors – traditional and modern, local and global. Vidovich et al. (2012) suggest that to understand university curriculum changes within the global context, it is important to examine both spatial and temporal dimensions simultaneously. The spatial dimension addresses questions on how the curriculum changes are influenced by global and local factors; the temporal dimension emphasises the historical links underlying the changes. I believe that a discussion of the background, driving factors, processes and implications of one case of *tongshi* education can contribute to a better understanding of the dynamics of globalisation in university curriculum policy transformations.

Second, academic staff members' and students' experiences and perceptions of *tongshi* education, which have not been fully discussed in the existing studies, are explored in this study, to develop a comprehensive understanding of the meanings and implications of *tongshi* education. I argue that it is important to listen to the stories of staff members and students, because *tongshi* education embodies the ongoing exploration of potential new models of university education. It is not only shaped by the policy agenda, but also by the actions of the stakeholders. University curriculum reform is regarded as a highly contested field, and it is important to separate the 'what is' (to identify

how and in what way the curriculum is changing) from the 'what should be' (the rhetoric of change) (Pegg 2013).

The overarching questions of this study are:

- (i) What are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?
- (ii) How do academic staff members understand the meaning of *tongshi* education and practise it in teaching?
- (iii) What are students' understandings and experiences of *tongshi* education?
- (iv) What is the distinctiveness of *tongshi* education when being reviewed in the global context where liberal education has been introduced into the undergraduate curriculum at universities in different parts of the world?

The *tongshi* education reform at Zhejiang University was selected as the case study for the following reasons (the process of how the site for this case study was selected will be discussed in Chapter 4, Section 4.2.2). First, since its reform in 2002, Zhejiang University has developed comprehensive and complex strategies of *tongshi* education, which provides a good subject for observing the processes and implications. Second, the existing studies of *tongshi* education have mainly focused on the cases of universities with strengths in the humanities and social sciences, but Zhejiang University was developed from a major polytechnic university, and now it is characterised by its academic strengths in the areas of engineering and technologies. Because *tongshi* education reform involves institution-wide changes, contextual factors such as the university history and background, disciplinary structure, and educational tradition, would be important in shaping *tongshi* education. It is fruitful, therefore, to develop a more diverse collection of cases encompassing different characteristics, so that a general presentation of *tongshi* education can be made.

Third, I was an undergraduate student in Zhejiang University, and have been paying attention to its *tongshi* education, which was an important part of my own educational experience. I am not intending to deny that the circumstance of being an alumnus of Zhejiang makes it more readily possible for me to gain attention and achieve access, however, the final decision was made based on

a comprehensive comparison of dozens of potential options, which offered no reasons to reject Zhejiang University as an appropriate site.

Data were collected mainly from policy documents and interviews. Data collection started with an examination of the relevant national and institutional policy documents and curriculum materials on the University websites, which took place immediately on the identification of Zhejiang University as the case study and continued during the fieldwork. The fieldwork was carried out over two months, from 3rd December 2014 to 31st January 2015, which included conducting semi-structured interviews and collecting institutional documents which were not available online.

To listen to different stories of stakeholders, interview participants were selected from the following four groups: university administrative leaders who were policymakers, academic staff members who were teaching or had taught *tongshi* courses, student tutors and political tutors⁹, and undergraduate students. Altogether forty informants were interviewed, using in-person and email interviews, individual and group interviews. The interviews varied in length from 30 to 90 minutes, with most lasting 40 minutes.

All interviews were conducted in Mandarin and were transcribed in Chinese for a verbatim record. I started to transcribe the interviews during the fieldwork, which gave me a chance to review the process and make adjustments to future interviews. Analysis was conducted based on the Chinese transcripts because it was felt that using my first language would enable me to get a better sense of the meanings embedded in the interviews. Segments of the interviews were translated into English when extracts were needed to illustrate a particular point. Data analysis was mainly based on thematic analysis. The phenomenographic approach was followed when exploring the stakeholders' understanding of '*tongshi* education,' which allowed the interviewees to

⁹ As will be discussed in Chapter 4 (Section 4.3.2), student-tutors are usually PhD candidates at Zhejiang University who help teacher to organise seminars in *tongshi* courses. Political tutors are staff of the political department, the University Committee of Chinese Communist Youth League, which presents in all Chinese higher education institutions. Political tutors' main task is to promote students' political conformity through supervising students' residence life and extra-curriculum activities. In this way they are involved in the implementation of *tongshi* education at Zhejiang University.

express spontaneously their perceptions and experiences, and the researcher to construct a multi-dimensional and multi-layered conceptual map of *tongshi* education based on the interview transcripts.

1.5 Structure of the thesis

This thesis consists of nine chapters. Following this Chapter 1, an introduction to the study, Chapter 2 reviews the history of Chinese higher education from ancient to modern times, with a focus on its continuity and transformations in terms of the aims, content and organisation, to provide essential background information for English readers on today's Chinese universities. The 2,500 year-history will be introduced in four periods according to the major changes in social-political contexts, which in turn shaped different higher education systems: (i) from 500 BCE to the 1860s: the imperial period, (ii) from the 1860s to 1949: the early explorations of modernisation, (iii) from 1949 to 1978: the stage of socialist experiments, and (iv) from 1978 to now: the stage of socialist market economy and internationalisation. This historical review describes the multicultural nature of Chinese universities, which is important in understanding *tongshi* education today.

Chapter 3 reviews the existing studies on *tongshi* education in Chinese and English literature, outlines the knowledge gaps, and addresses the research questions of this thesis. I first trace the usages of the term '*tongshi* education' in different times and delineate its explanations in dictionaries and traditional texts, to present the rich meanings of the term. Comparison is made between '*tongshi* education' and several other relevant terms, to explain why the term '*tongshi* education' was chosen by Chinese scholars to name the current curriculum reforms, and why I chose to use this Romanised form instead of 'general education' or 'liberal education' which have been used by many other scholars. I then summarise and analyse the various formal definitions of *tongshi* education made by scholars, to show the different understandings of this term. A following section reviews scholars' discussions of the strategies, practices and implications of *tongshi* education in different universities. This chapter ends with a discussion of how the existing studies inform my research

questions and design, including the reasons for choosing a single case study and the emphasis on stakeholders' understandings and experiences.

Chapter 4 describes the methodology of this research. I first explain the key elements and steps of this single-case study, as well as the reasons and process of selecting the case of *tongshi* education at Zhejiang University. I then review my fieldwork experience, including sampling, contacting, applying for access and organisation, followed by a discussion of the key issues in transcription, data analysis and translation. I discuss how I borrowed from the phenomenographic approach in my research. Several ethical issues are discussed. I also reflect on my stance as a researcher in this cross-cultural study: being Chinese and looking at a Chinese university while trying to communicate about it with Western readers in English.

Chapters 5, 6, 7 and 8 present the findings of this study. Chapter 5 explores the stories of the policymakers. I first describe the history of Zhejiang University, to give the reader information on the local context where this case of *tongshi* education reform took place. Then I review the process of the reform at Zhejiang University, to discuss the driving factor, purpose, and process, and the curricular and organisational changes it has brought. The definitions made by the policymakers will be analysed to highlight the characteristics of *tongshi* education. This chapter probes the first overarching research questions: What are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?

Chapter 6 tries to answer the second research question: how do academic staff members understand the meaning of *tongshi* education and practise it in teaching? First, I explore the motivations of academic staff members for participating in *tongshi* education, and examine how the *tongshi* education reform has impacted on their work experience. Following the phenomenographic approach, I then report four qualitative conceptions of *tongshi* education identified from academic staff members' and students' understandings. The reasons for different understandings are discussed. A comparison is made between the four conceptions and the existing definitions

of *tongshi* education made by scholars and policymakers, to see how the new findings can contribute to the idea of *tongshi* education.

Chapter 7 discusses the third question: what are students' understandings and experiences of *tongshi* education? I first report students' learning experiences through examining their expectations and interests, the amount of importance, time and effort they give to *tongshi* courses, and their feedback on teaching and learning outcomes. Then I review other important aspects of student experience influenced by *tongshi* education, such as residence life and extra-curricular activities. Students' understandings of the idea of *tongshi* education are discussed and compared with those of academic staff members. At last, by bringing together different stories of *tongshi* education by the three groups of stakeholders, i.e., policymakers, academic staff members and students, I discuss some problems in the teaching and learning of *tongshi* education at Zhejiang University. Suggestions are made for more effective practices in *tongshi* education.

Chapter 8 discusses the last research question: When being reviewed in the global context, what is the distinctiveness of *tongshi* education from other practices of liberal education, which have been observed in different parts of the world? I first highlight the key issues discussed in English and Chinese literature about the current university curriculum reforms and challenges in liberal education and general education outside China, to compare with my findings on the *tongshi* education reform at Zhejiang University. I then focus on two particular challenges in *tongshi* education: (i) the development of citizenship education through *tongshi* education, and (ii) the revitalisation of Chinese traditional culture in modern Chinese universities. I argue that these two issues will, to a large extent, decide if Chinese universities will develop an effective *tongshi* education.

Chapter 9 gives the conclusions of the research. I first summarise the main research findings of this study to answer the four research questions. I then reflect on the limitations of this study, namely a single case, a relatively small group of interviewees, and a lack of classroom observation. I lay out the

research's contributions as expanding the existing knowledge of the meanings of *tongshi* education, and its impact on the university curriculum, teaching, and learning, and reaffirm the importance of reviewing the global-national-local dynamics of *tongshi* education. Finally, I make several suggestions for future research, policy and practice before concluding the thesis with personal reflections.

Chapter 2 A brief history of Chinese higher education

2.1 Introduction

Barnett believes that ‘a modern university is, at any one time, a layering of forms, as the new settle, uneasily at times, over the earlier incarnations’ (2011, p.453). To understand *tongshi* education in today’s Chinese research-intensive universities, it is thus necessary to explore their many-layered history. In this chapter, I will review the history of Chinese higher education, in order to provide the reader of this thesis with sufficient background knowledge, and to discuss how cultural and social tradition has shaped Chinese modern universities. According to the existing findings, the history of Chinese education for which there are reliable records spans over 2500 years. In many of the studies I have reviewed, the history usually consists of two major stages, divided by China’s confrontation with Western industrialised civilisations in the late 19th century, e.g., the two Opium Wars (1839-1860) between China and the UK, and the reforms for modernisation that followed. In the following sections I will first introduce the general features of China’s traditional education which lasted more than 2000 years, and then divide its modern education into three periods, to reflect the fundamental changes in the higher education system accompanied by political and social transformations (Chen et al. 2008; Pang 2009).

- From 500 BCE to 1860 CE: traditional Chinese education (Section 2.2)

The first stage spans more than 2000 years, from around 500 BCE to the first half of the 19th century, covering the thirteen dynasties that ruled ancient China before its modernisation and Westernisation in the 1860s. Traditional Chinese higher education was particularly characterised by three elements, which are still explicitly and implicitly influential on the contemporary system: (i) the ideas of educational purposes, contents and pedagogy from Confucianism and other traditional schools of philosophy; (ii) the Imperial Examinations System (IES) as the major tool for selecting qualified scholar-officials; and (iii) private

academies, *shuyuan*, playing an important role in cultural and educational innovation.

- From 1860 to 1949: early explorations of modernisation (Section 2.3)

This stage was characterised by efforts from different governments and social groups to modernise Chinese society, and to explore a way of integrating Western education with Chinese historical and social context. From the 1860s to the 1900s, the last Chinese imperial government built dozens of modern imperial colleges teaching modern sciences and technologies, under the ideology of Confucianism. From 1912 to 1949, China's two nationalist governments launched wider reforms to learn from the social and political systems of Europe, the US and Japan. Modern education systems and modern universities were built as a result of facing the challenge of exploring a Chinese model from various cultural influences.

- From 1949 to 1978: socialist experiments (Section 2.4)

This period saw a series of radical socialist experiments, led by the Chinese Communist government established in 1949. All the universities and colleges built since the 1860s were transformed into public specialist colleges of the Soviet-style, to serve the government's plan for economic development and political control. International communication with the Western world was cut off. The Cultural Revolution between 1966 and 1976 was initiated by Mao Zedong, the most powerful leader of the Chinese Communist Party. Mao wanted to rely on student activism to explore a new approach to Chinese socialism instead of the Soviet model, but ended up with chaotic disruptions to Chinese culture and education.

- From 1978 until the present day: the reform stage (Section 2.5)

The reforms and policies implemented since the late 1970s have tried to reduce the negative impacts of the radical socialist experiments during the 1950s to 1970s. Influenced by the so-called socialist market economy, which is based on a predominantly state-owned sector within an open market economy, Chinese higher education has been undergoing a series of market-

oriented reforms, which have resulted in a mass higher education system, with the government's political control remaining. International connection with Western universities was rebuilt in various forms, which also makes Chinese universities increasingly involved in the global higher education market.

2.2 From 500 BCE to 1860 CE: traditional Chinese education

In historical studies that are more detailed, the story of traditional Chinese education would be further divided into several stages to elaborate different features of education in each of China's thirteen dynasties. However, because of the limited space, I will not go into such details, but focus on the most relevant information – the purposes, contents, pedagogies and institutional organisations of Chinese higher education – in order to explain how the traditional culture has shaped today's university education.

2.2.1 Confucianism and other influential schools of philosophy

The Warring States Period (475–221 BCE) is regarded as one of the most formative periods of Chinese culture (Ames and Rosemont 1999; Schaberg 2011). Confucianism and other schools of philosophy which developed during the Warring States Period laid the foundation for traditional Chinese education with regards to its purposes, contents and pedagogies.

The Warring States Period refers to the collapse of the Zhou dynasty (1122–256 BCE). During the Zhou dynasty, many small states were grouped in North China and were linked together through allegiance to the Zhou royal house (Chen 1966). The political system was roughly analogous to the feudal system of medieval Europe. The historical records, albeit limited, have shown that educational institutions were built for the royal houses, with the purpose of cultivating qualified governors. The teaching was mainly focused on: (i) the moral virtues of a governor; (ii) the rites of the court, including chanting and poetry; and (iii) physical training in riding and hunting (Li 1989).

The Warring States Period saw increasing warfare among the small states, which had already been more and more independent from the weakened Zhou royal house. During this period, various schools of philosophy, later called the Hundred Schools of Thought, were developed to explore different ways of recovering stable governance and social order. The philosophers also started to provide private tuition accessible to students from a wide range of social classes, which meant that education was no longer a privilege of the royal families. Based on different philosophical stances and political attitudes, the Hundred Schools of Thought shared the same emphasis on cultivating students to be qualified governmental officials (Ge 2010). I will now give a brief introduction to the main schools.

Confucianism was developed by, and named after, the Chinese philosopher Confucius (551–479 BCE). Confucianism includes the belief that morality is the most important approach to, and meanwhile the ultimate goal for, a flourishing society. It thus emphasises that education is to cultivate *junzi* (gentlemen), who have gained virtues and wisdom and ultimately moral perfection (Lau, 1979). *Junzi* are to serve as governmental officers, and behave as exemplars to common civilians, thus creating a virtuous society. According to Confucianism, students should study the *Six Arts* (which is inherited from the royal education): rites, music, archery, charioteering, calligraphy, and mathematics. It is emphasised, in the main book recording the teaching of Confucius, *the Analects* (translated by Ames and Rosemont 1999), that one important quality of *junzi* is ‘*buqi*’, which means not to be utilised as a tool or an instrument for one or two specific functions. That is, the wide learning of the *Six Arts* is not a kind of vocational training, but ultimately to contribute to students’ development, particularly moral development (Qian 2005). The concept of *junzi* plays a central role in Confucian philosophy of education (Zhang 2009) and has been frequently referred to by scholars to explain the meaning of ‘*tongshi* education’ recently, to highlight that higher learning should be based on a wide range of subjects and for students’ well-rounded development, rather than narrowly-specialised and vocationally-oriented (Huang 2001).

Daoism (or Taoism)¹⁰ is associated with two important philosophers, Laozi (or Lao-tzu, around the 6th century BCE)¹¹ and Zhuangzi (or Chuang-tzu, late 4th century BCE). Criticising Confucianism's emphasis on human morality cultivated through obediently following teachers and traditions, Daoism highlights the importance of natural spontaneity, freedom and egalitarianism (Li 2011a). Daoism argues that war and social disorder emerge because human faculties, including sensation and cognition, are abused. Therefore, its teaching focuses on spiritual development through meditation and reflection on one's relationship with the natural world, to go with, not against, the natural flow, conveyed by a key concept, '*wuwei*' ('non-action' or 'non-doing'). This idea was also adopted by some later governors as a technique of governance: to control less in order to thrive longer. To many scholars, Daoism played the important role of balancing Confucianism, when the latter became the orthodoxy in China. As was concluded by Hayhoe (2007), Confucianism represents the mind of the scholar-officials, of being a good family man, a conscientious bureaucrat and a sober and responsible citizen; in contrast, Daoism, integrated with Buddhism from South Asia, represents the spiritual scholars seeking spirituality. These two strains constitute the most important personality of a traditional Chinese scholar-official. In this sense, Confucianism and Daoism are the strongest influences in Chinese culture.

Other schools also offer important insight into political and social issues. For example, Moism (or Mohism) emphasises that morality is defined not by tradition and ritual, but rather by a constant moral guide that parallels utilitarianism, to promote and encourage social behaviours that maximize the general utility of all the people in that society; and Legalism (*Fajia*) emphasises the importance of clear and strict laws and regulations, thus leading to teachings related to laws, economics and administrations.

¹⁰ Scholars distinguish philosophical Daoism from religious Daoism, the latter associated with reference to a group of naturalistic and mystical religions which are indigenous in China: Li, Chenyang. 2011a. "Chinese Philosophy." Oxford: Oxford University Press. In this thesis, 'Daoism' refers to philosophical Daoism.

¹¹ Laozi was usually dated to around the 6th century BCE and believed to be a contemporary of Confucius, but some historians contend that he probably lived during the 5th or 4th century BCE.

These schools not only had an important influence on Chinese politics and social lives, as they were adopted by the governors and most students from these schools of philosophy became scholar-officials, but also fundamentally shaped Chinese education in two respects. Firstly, the philosophers' teaching and their students' discussion were recorded and later became the essential readings for Chinese students. The virtues and qualities described in these books were perused as exemplars. They laid the foundation for traditional education with regard to its content, teaching approaches, valuable knowledge and ideal graduates for Chinese education – ideas which were referred to when people talked about *tongshi* education. Secondly, the form of private academy was kept and developed, which helped higher education to maintain some independence from government control (Zha 2012), and thus reshaped the relationship between government and educational institutions.

2.2.2 The Imperial Examinations System

The Imperial Examinations System (IES), or *keju*, is a result of the establishment of a unified and politically centred Chinese empire since 221 BCE. The system started during the 4th century, and had become widely utilised as the main tool for selecting bureaucrats before its abolishment in 1905. The IES determined that education is mainly to serve the needs of political governance, and this fundamentally shaped the nature of education in ancient China.

In 221 BCE, the state of Qin brought an end to the Warring States Period by annihilating the other states, and starting the Qin dynasty (221 to 207 BCE) which ruled areas including today's North China, East China, and part of South China. The establishment of the Qin dynasty indicates the beginning of a unified and centralised imperial China through standardising currency, weights, measures, and a uniform system of writing, as well as connecting walls along the northern border which eventually were developed into the Great Wall of China. To replace the old feudal aristocracy, the Qin dynasty selected non-hereditary scholar-bureaucrats to construct a three-level

hierarchy of administration, from local to provincial to court, serving the emperor (Li 1989).

The political transformation was accompanied by a corresponding unification in ideology. Confucianism was claimed to be the orthodoxy in the early Han dynasty (206 BCE-220 BC), which succeeded the Qin dynasty. Confucianism was reinterpreted to provide legitimacy to imperial rule (Gardner 2014). Daoism remained relatively influential as an important balance to Confucianism as a governmental ideology, and was integrated with local religions. Meanwhile most of the other schools of philosophy remaining from the Warring States Period disappeared or were absorbed into Confucianism and Daoism (Elman 2013).

In the first few centuries after the Qin dynasty, the selection of scholar-bureaucrats was made through nomination by local governments of candidates who were known for their moral and academic achievement. The standardised Imperial Examinations System started to take shape during the 4th century, and was formally established from the 8th century. The system contained three levels, from local to provincial to court examinations. A 'ladder of success' (Hayhoe, 1996, p. 11) was made possible to most male candidates, regardless of age and socioeconomic background.¹² Despite there being variations in different dynasties, in general, candidates who passed local-level examinations were granted privileges such as exemption from tax and military service. When passing examinations at the provincial level, candidates would become qualified to be local officials, and passing court examinations meant the possibility of becoming senior officials in the central government.

In accordance with the examinations, a three-level system of educational institutions was built. At the local level, schools were mainly funded by neighbourhoods, and teachers were hired as private staff. The provincial governments usually funded, or partly funded, one or more educational

¹² During some periods, students from commercial sectors were discriminated against because the governments discouraged commerce or business.

institutions at the provincial level, for students who had passed the local level examinations. At the national level, the central government funded *taixue*, or *guozijian* in some dynasties, as the highest level of learning institution. *Taixue* or *guozijian* also served as the educational department of the government. The teachers in the provincial and central schools were hired by the government from school officials or well-known scholars. It should be noted that candidates could attend examinations level by level without attending schools of any form. The selection of bureaucrats was based on the examination results, while educational experience itself entailed no evidence of qualification. In this sense, the Imperial Examinations System was a political mechanism, while the corresponding three-level system of schools was no more than a subsidiary part.

In most dynasties, the Imperial Examinations examined candidates' understanding of the Confucian classics and the application of Confucian principles to governance, in accordance with the government's official interpretation. All the three levels of examinations and schools focused on the core Confucian classics, *Four Books* and *Five Classics*, as the essential learning materials. Students and candidates were expected to develop an increasingly deep understanding. The *Four Books* record the Confucian ideas of perfect individual personality, harmonious social relationships and ideal political governance, and consist of *Confucian Analects*, *Books of Mencius*, *Great Learning* and *Doctrine of the Mean*. The *Five Classics* are *Classic of Poetry*, *Book of Documents*, *Book of Rites*, *I Ching* (or *Book of Changes*), and *Spring and Autumn Annals*. *Classic of Poetry* is a collection of 305 poems including folk songs, festal songs sung at court ceremonies, and hymns and eulogies sung at sacrifices to heroes and ancestral spirits of the royal house. It is regarded as the beginning of Chinese literature and music. *Book of Documents* records the conversations between the emperors and senior officials of the early Zhou dynasty. *Book of Rites* describes the rites, social forms and court ceremonies of and before the Zhou dynasty. *I Ching* elaborates the early understanding of the relationship between the individual and nature. *Spring and Autumn Annals* records the history and governance of

the State of Lu before the Warring States Period. If we use the terminologies of modern disciplines, the Confucian teaching covers at least literature, philosophy (ethics and metaphysics), history and politics.

The IES shapes Chinese society and culture fundamentally, and some aspects are still influential today, more than one century after the system was abolished. Firstly, the Imperial Examinations System was regarded as an important tool for building an effective bureaucracy to unify the empire and for keeping social mobility so that civilians could be promoted to participate in governance, which helped to maintain a stable imperial government (Zhang 2009). Secondly, it strengthened the political control on education, to serve to maintain the Confucian orthodoxy. Thirdly, it prioritised the knowledge of the classics and literary style over scientific knowledge and technical skills,

2.2.3 Independent academies: *shuyuan*

Shuyuan, meaning ‘academies’ in English, originated in the 8th century in China. Under the influence of Confucianism, Daoism and Buddhism, *shuyuan* were usually private establishments built in mountains away from cities, providing a quiet environment for higher learning where scholars could engage in studies and contemplation without worldly distractions (Hayhoe 2007). Usually *shuyuan* were independent from the government and were led by well-known scholars, who attracted disciples and colleagues through the virtuosity of their scholarship. While the Imperial Examinations System tightened political control on mainstream education, the *shuyuan* provided a certain degree of freedom in education and research, where scholars could study a wider range of books beyond the core Confucian classics, publish and teach their own interpretations of classics, and discuss political issues from a critical perspective. That said, sometimes *shuyuan* were more influenced by the Imperial Examinations System. For example, in the early and middle Qing dynasty, thousands of *shuyuan* were created for the purpose of preparing students for the Imperial Examinations, while only a few were functioning as centres of free study and research.

Generally, scholars believe that *shuyuan* revitalised the private tuition started during the Warring States Period, and emphasised an interactive learning atmosphere and students' transformative development as they were required to critically review and practise what they learnt (Yang and Zhao 2004). It is also pointed out that *shuyuan* played an important role in Chinese culture by critically developing the classical texts (Hayhoe, 1996). There are studies in Chinese comparing *shuyuan* to the early universities in Europe, and some scholars believe that *shuyuan* embodied a tradition that to some extent parallels the autonomy and academic freedom in Western universities (Yang and Zhao 2004). Zha (2012) defined it as 'intellectual authority', which refers to the values of self-mastery, social responsibility, and intellectual freedom.

In the late Qing dynasty, since the 1860s, the traditional *shuyuan* for classical learning declined when schools teaching Western science and technology were established. However, the *shuyuan* still remained as an important cultural symbol, used to name modern Chinese educational institutions and departments. For example, as was mentioned in Chapter 1, in the *tongshi* education reform of Fudan University student residential colleges were named *shuyuan*, to highlight the importance of an interactive learning atmosphere and students' transformative development (Sun, 2013).

2.2.4 The problem of traditional Chinese education: the Needham Question

To end this section on the long history of traditional Chinese education, I would like to revisit the so-called 'Needham Question', which has long been discussed by Chinese scholars (Lin 1995). Needham pointed out, based on his research on the history of Chinese science and technology, that between the 1st century BCE and the 15th century CE, Chinese civilization was more efficient than the West in applying human natural knowledge to practical human needs (Needham 1954), but 'why did modern science, the mathematisation of hypotheses about Nature, with all its implications for advanced technology, take its meteoric rise only in the West at the time of

Galileo [but] had not developed in Chinese civilisation or Indian civilisation?’ (Needham 1969, p.190).

To answer this question, some scholars have blamed the dominance of Confucianism and Daoism, and the Imperial Examinations System in Chinese society and education. It is pointed out that Confucianism and Daoism devalued scientific and technical knowledge and skills, while emphasising the value of a student’s moral development and governance skills (Chen 2014). Under the Imperial Examinations System, education was mainly designed to cultivate qualified bureaucrats who were familiar with classical texts and tradition; critical thinking and innovation were less rewarded. Moreover, outside of higher education, the whole society was relatively stable and enclosed, with its economic growth relying mainly on traditional agriculture (Chen 2014), and scientific and technological innovation was not rewarded.

The traditional Chinese culture and education showed its limitations and disadvantages in the 1860s when China was confronted with the Western industrialised civilisations. Henceforth, there has been a discussion of whether it is possible, and if so how, to revitalise Chinese tradition with modern knowledge. Many efforts have been made in Chinese education, among other sectors, to explore this question, as will be discussed in the following parts of this chapter.

2.3 From 1860 to 1949: early explorations of modernisation

The two Opium Wars (1839-1860) between China and the UK are usually regarded as the beginning of China’s modern history (Beeching 1975; Fairbank 2008; McAleavy 1968). In the following decades, China’s last imperial regime was forced to open its border for international trade as a result of its failure in a series of wars involving different countries, including Japan, Russia and many Western countries. Confronted with the rapidly increasing connection with Western industrialised civilisation, a series of political and cultural changes took place in China, with the purposes of modernisation and self-strengthening. In 1911, China’s first republic government was established

after a military revolution, which ended the imperial government and continued China's process of Westernisation, until it was succeeded by a communist government. This section will introduce the period between the 1860s and 1949, divided into three phases according to major political changes, to describe the process of how traditional Chinese culture was transformed.

- (i) The late Qing regime between 1860 and 1911. The government launched reforms to introduce modern sciences and techniques while keeping Confucianism as orthodoxy, and abolished the Imperial Examinations Systems.
- (ii) The first nationalist government and the Warlord Era between 1911 and 1928. Modern universities of Western style and values were built.
- (iii) The second nationalist government between 1928 and 1949. A national system of education was built, and governmental control on universities was enhanced.

2.3.1 1860-1911: the late Qing regime

In its last few decades of ruling, China's last imperial government, the Qing government, started to launch a series of reforms to learn modern technology from the Western world and to integrate it with Chinese culture.

- The Self-Strengthening Movement from 1861 to 1895

The Self-Strengthening Movement was led by a group of open-minded senior scholar-officials with support from the Qing government, to introduce Western firearms, machines, scientific knowledge, and to train military and diplomatic officials. Within a few decades, dozens of modern imperial institutions on foreign language, modern science and technologies were established, mainly in eastern coastal cities, where Western businesses and missionary groups had been flourishing. The first modern imperial institution, Tongwen Guan (the School of Combined Learning), was established in 1862 in Beijing by the central government. It focused on education in foreign languages including English, French, German, Russian and Japanese, and later, mathematics, astronomy, medicine, geography and international law. Other examples

included: an institution attached to the Jiangnan Arsenal in Shanghai, in 1865; Fuzhou Navy Yard School in Fuzhou, South China, in 1866; Beiyang School in Tianjin, North China, in 1895; Nanyang School in Shanghai in 1896; and Qiushi Academy in Hangzhou, East China, in 1897. Some of these later became the basis for modern Chinese universities. Meanwhile, considerable work was also undertaken in the translating of many Western books on science, technology, philosophy, and social sciences.

Many of these institutions were headed by, and staffed with, Westerners, among whom many were missionaries, which showed that there was 'a remarkable degree of cooperation between the Chinese bureaucrats and missionaries' (Hayhoe 1996). Many students in these institutions were sent overseas for further training. The main destinations included the US, the UK, France, Germany, and Japan. Those who returned from abroad later played very important roles in changing and modernising China in many areas of social and political life.

In these schools, both traditional Chinese education and modern knowledge were provided, showing the government's efforts to maintain the integrity of Chinese culture. The principle of the curriculum, as was stated by one scholar-official, Zhang Zhidong, was that of 'Chinese learning as the essence, Western learning for its usefulness' (Li 1999). That is, a solid mastery of Chinese classics was seen as the essential basis for the learning of practical knowledge in Western subjects. To the Qing government and most of its scholars, modern scientific knowledge was a tool to be utilised for the purpose of national strengthening in the military and in industry, while Chinese traditional education was to lay the foundation for students' moral development and loyalty to the government.

- The Late Qing New Administration Reform between 1901 and 1911

In 1894, the First Sino-Japanese War broke out. China's quick failure in this war after six months shocked the Qing government, who had been confident that its military forces had been empowered during the three decades of the Self-Strengthening Movement (Beeching 1975). Some scholars and

reformists during that time argued that China's failure in the war showed that the Self-Strengthening Movement was a wrong policy, and that a political, social and cultural reform was essential for China's self-strengthening. In 1901, the Qing government started a series of cultural, economic, educational, military and political reforms, learning from Western countries. In education, the Imperial Examination System was abolished in 1905. All the traditional educational institutions and *shuyuan* were transformed into Western-style schools and specialist colleges. At the end of the 1910s, there were more than 100 modern colleges in the country (Zhu, 2011).

- Missionary colleges

Apart from the government's reforms, another important part of China's modern education was the group of missionary colleges established and founded by missionary groups from the USA, the UK and France (Zhou and Zhang 2012). Since the 1860s, an increasing number of Western businesses and missionary groups, both Protestant and Catholic, arrived in China and were allowed to build schools. Starting as nurseries and primary schools, many of these institutions reached the college level. Some were modelled after American colleges, and their curricula were characterised by a combination of religious education and liberal arts. English was adopted as the main language of instruction for the Western subjects. The main purposes of these colleges were to convert students to Christianity, and to provide them with knowledge and skills to contribute to China's development from a Christian perspective (Hayhoe 1996). Many of these institutions were charitable in nature and were built mostly in coastal cities such as Shanghai, Njing, Guangzhou, Hangzhou, and Beijing. A few of them were built in the middle and western part of China. While the exact number of these institutions is unavailable, there were at least thirteen well-known missionary universities thriving until the establishment of

the communist government in 1949¹³. Like the new imperial institutions, the missionary colleges also sent a large number of students abroad.

2.3.2 1911-1927: development of modern universities

The regime of China's last imperial government ended in 1911 after the *Xinhai* Revolution. A republic government was established in 1912, which claimed to learn from Western democratic political systems and to conduct wider reforms to further modernise Chinese society. The government, however, failed to develop a strong power, thus China was actually controlled by a group of local warlords between 1916 and 1928. However, the government managed to build a national education system¹⁴ and started to build modern schools.

- A critical reflection on traditional Chinese culture: The New Culture Movement

This period between the mid-1910s and 1920s, which was later named 'the New Culture Movement' by historians, saw a critical reflection of traditional Chinese culture and a call for modern Chinese culture. Scholars like Chen Duxiu, Cai Yuanpei, Lu Xun, Zhou Zuoren and Hu Shi, who had classical educations, called for the creation of a new Chinese culture based on Western

¹³ The list of the 13 missionary universities: Shanghai College, 1906-1952; Saint John's University, 1879-1952; Université l'Aurore, 1903-1951; Soochow University, 1900-1952; Jinling University, 1888-1952; Jinling Women's College, 1913-1952; Hangchow University, 1897-1952; Yenching University, 1919-1952; Fu Jen Catholic University, 1925-1952, and restarted in Taiwan in 1960; Lingnan University, 1888-1952; Hsiang-ya Medical College, 1921-1949; Institut des Hautes Études et Commerciales, 1920-1952; Central China University, 1909-1952; Cheeloo University, 1882-1952; West China Union University, 1910-1952; Fukien Christian University, 1916- 1951; Women's College of South China, 1908-1951.

¹⁴ China's first modern education system was established in 1912, consisting of three stages: primary education (junior and senior, 7 years), secondary education (4 years), and tertiary education (7 years for university education, and 4 years for vocational training in specialist colleges). A new system following the US style was approved in 1922, which contained 6 years for primary school, 3 years for middle school, 3 years for high school, and 4 years for college or university.

standards, especially democracy and science.¹⁵ Various newspapers and journals were created to introduce Western ideas such as individual freedom and women's liberation. Western methods of textual and critical analysis were adopted to re-examine Confucian texts and ancient classics, resulting in a rich collection of academic works. Although there were a few scholars and government officials who argued against these changes, gradually Confucianism started to step down as the official ideology, but to be an academic subject for study.

Moreover, the classical Chinese language (*wenyan*), which had been the written language for thousands of years, was replaced by modern Chinese language in teaching and writing. The advocates of this change, such as Hu Shi, argued that the modern Chinese language was easy to understand and would help to introduce Western knowledge more clearly (Chen 2017). Some scholars noticed that, in the late 19th century, the first group of scholars and translators used many traditional Confucian terms to explain Western concepts. However, the modern terms borrowed from Japanese vocabulary became more popular from the early 20th century (Zhou and Zhang 2012). For example, the Western concept of 'natural sciences', which was first translated into '*gezhi*', a traditional Confucian term meaning gaining true knowledge through a thorough examination of the subject (Bol 2008), was later changed into '*kexue*', a Japanese term.

I believe that the rejection of classical Chinese language during this period showed scholars' negative attitude towards the traditional culture and ideology underlying the language. In this sense, it is interesting to see that a number of classical terms have been used again in today's Chinese universities, such as '*shuyuan*'. Most relevant to this research, the term '*tongshi*' itself, is to a great

¹⁵ A group of outstanding scholars played a very important role in leading and shaping China's culture and education during this period, whose experiences presented different cultural influences. The educational experience of most of these scholars could be divided into two very different stages: traditional education in childhood and youth, and overseas experience in Japan or the West in their later period of life. A good example is Cai Yuanpei, who passed the highest level of the Imperial Examinations at the age of 26, then went to Leipzig University in Germany to study philosophy and psychology in 1907, and later went to France.

degree, a traditional one. I will return to this point in Chapter 3, to explore in detail the meaning of '*tongshi*' in classical texts, and to discuss why this term has been chosen as a name for the contemporary university curriculum reforms.

- Development of modern universities: the influences of Europe and the US

During the late Qing dynasty, the imperial government built hundreds of specialist colleges, but not modern universities like those in the West which conduct research and teaching in a wide range of subjects. After the establishment of the Nationalist government, a group of modern universities were built, learning firstly from Europe and then the US.

During the 1910s, the higher education system and modern universities were considerably influenced by Cai Yuanpei, who was appointed as the first minister of education for a short period in 1912, and to other important positions after 1917, including the president of China's first national University, Peking University. Cai spent around ten years (1906-1910 and 1912-1916) in Europe, mainly in Germany and France. His idea of university was fundamentally influenced by the Humboldtian model of university, which emphasises teaching and research in basic knowledge domains (Zhou and Zhang 2009). Cai made a clear distinction between specialist colleges and universities. The former focused on practical areas of knowledge for professional or applied studies, and the latter were to commit to advancing academic theoretical knowledge, postgraduate education and research activities, under the principle of academic freedom and institutional autonomy.

Since the 1920s, a group of Chinese scholars returning from America started to become influential over educational policies. Under their influence, Chinese higher education became more characterised by the US style. The distinctions between universities and specialist colleges were weakened. Meanwhile, emphasis was put on the social responsibility and social involvement of universities in political and social sectors. The curricula and pedagogy were also, to a great degree, following US university education.

Despite the wars and political conflicts during this period, a considerable growth in higher education was observed in terms of the numbers of institutions, student enrolment and educational quality (Zhou and Zhang 2012). However, the universities were also confronted by some fundamental challenges – of exploring suitable models of academic research, education, and social involvement, from the diverse and sometimes competing cultural influences. As was observed by Hayhoe (1996), Chinese universities needed to think about how to contribute to the ‘fields that had been given a definite modern form in the West’ (p.50). Particularly in the humanities, a balance was needed to be sought between a critical rethinking of China’s vast heritage of classical thought on the one hand and, on the other, attention to modern works of literature, history and philosophy, as well as an influx of academic literature from the West. In the social sciences, the problems were how to develop fields such as sociology, anthropology, political science, law, and economics, which had emerged in the context of nineteenth-century capitalist development in the West, in ways that had some authenticity in the Chinese context. These challenges, to some extent, are still applicable to Chinese universities today.

2.3.3 1927-1949: debates on the purpose of higher education

In the contexts of economic difficulties and a growing threat from a war with Japan, the Nationalist Party of China built a relatively centralised one-party government in 1927. To prepare for the coming war with Japan, the Nationalist Government tightened its control of education. New legislation was passed in 1928 to redefine the aims of higher education: ‘universities and professional schools must emphasise the applied sciences, enrich the scientific content of their courses, to nurture people with specialised knowledge and skills, and mould healthy character for the service of nation and society’ (Hayhoe 1996). This statement emphasised the practical value of higher education, instead of the intrinsic academic value of truth-seeking.

This statement was an official response to two debates around what and how to teach in universities which arose among scholars during the late 1920s (Zhu, 2011). The first debate arose from the fact that there were far more

students studying in, and more institutions for, the humanities and social sciences than natural and applied sciences. Because of the remaining influence of the traditional stereotype which discriminated against craftsmanship and practical technology, many people still believed that graduates from the humanities and social sciences were more favourable in the sense that they would become government officials while those from the sciences and technologies were merely craftsmen. However, some scholars and government officials argued that sciences and technology were vital in China's modernisation. As a result, the government limited enrolment in the humanities and social sciences in order to increase enrolment in sciences and technologies.

The second debate was between training specialists and cultivating '*tongcai*', which means a scholar with comprehensive and integrated knowledge. The government emphasised that universities should train specialists in the practical areas that were of vital importance to the national military defence and industrial construction, and that universities should design their curricula for practical social needs. However, there was a different voice from scholars and educators, among whom many were senior administrators of the national leading universities. These scholars insisted that university education should not be reduced to the short-term needs. Instead, a basic, broad and comprehensive education was of intrinsic value, and would be more fruitful in the longer term for the well-being of both the nation and individual students. It was during this time that the term '*tongshi* education' was first used, in a similar sense to '*tongcai*' (Lu 2016a). This debate provided a very important and interesting case for comparison with today's *tongshi* education reform in Chinese universities, with regard to background and understanding of higher education, which will be discussed in Chapter 8 in this thesis.

In the following two decades, the Nationalist government endorsed a series of policies to increase its power over higher education, in terms of enrolment, curriculum and administration. In 1932, the government initiated standard college entrance examinations at city and province level, and established national criteria for recruiting and promoting academic staff members. In 1938,

national committees of all the major fields of knowledge were established under government orders, to standardise curricula across different institutions. The government also started to tighten its control of ideology in campuses through political education. Student activism, especially by the left-wing groups and communist groups was forced to stop.

However, the government's policies were disrupted by the Second Sino-Japanese War (1937-1945). The Japanese army took control of Beijing and North China in 1937, and then the whole east and southeast region, where most universities were located. The government had to move to the southwestern city Chongqing. Most universities also moved to the western part of China, such as Sichuan, Shaanxi, Gansu and Yunnan, to continue to function while resisting the Japanese invasion. Meanwhile, universities' links with the Western world were still strong. There was a growing number of Chinese students going overseas for undergraduate and postgraduate education, and a large wave of returning scholars in many fields, including physics, chemistry, biology, geology, meteorology, humanities and social sciences (Bailey 2013; Zhou and Zhang 2012).

The less noticed story during this period was the growth of the institutions developed by the Chinese Communist Party, which were not the mainstream of education, but had an important influence on the higher education system established after 1949 by the socialist government. The Chinese Communist Party was established in Shanghai in 1921. Its early efforts in building its own higher education institutions in Shanghai were forced to stop by the Nationalist government (Fraser 1965; Uhalley 1988). It was until 1938 that the Communist Party could build some higher education institutions in the rural areas in Central and West China. Some of them provided short-term training of around six-months for military and political cadres, such as the Anti-Japanese Red Army University. Many of the communist leaders came to lecture on the issues of policy, revolution and war strategy. Some other institutions offered longer-term programmes for the young people who went to join the communist revolution, including Yan'an College of Natural Sciences, Lu Xun Academy of the Arts, and the China Medical University (Hua 2017). In the communist

institutions, Mao Zedong's¹⁶ adaptation of Marxism and Leninism to Chinese conditions was taught as 'a new epistemological orthodoxy and a new Chinese system of thought' (Hayoe, 1996, p. 62), which called for a study of Chinese history, contemporary conditions, revolution under the guidance of Marxism-Leninism, and to serve class conflict against the bourgeoisie.

2.4 From 1949 to 1978: the socialist experiments

The Chinese Communist Party established a socialist government after its army defeated the Nationalists in the four-year civil war between 1945 and 1949. The global context of the Cold War pressed the Chinese government to seek a close relationship with the Soviet Union, and cut communication with the Western world for almost three decades. Under the government's agenda of national self-strengthening and to stand against the capitalist world, it was a period full of radical socialist experiments accompanied by reversals. During 1949 to 1956, the Soviet model was copied in almost all areas of social life, including a hierarchical higher education system where institutions and curricula were narrowly segmented according specialised knowledge, and entirely controlled from one centre at the top. From 1956 to 1966, the Soviet model was criticised after the political conflicts between the Chinese government and the Soviet government. More Chinese elements were observed in higher education. The following decade, 1966-1976, saw the Cultural Revolution, which was initiated to explore a new Chinese socialist culture and education but ended up with huge chaos.

2.4.1 1949-1966: an overall restructuring of higher education

At its first national higher education conference in 1950, the government announced that the purpose of higher education in the socialist Chinese state

¹⁶ A Chinese communist revolutionary, political theorist and the founding father of the People's Republic of China. He co-founded the Chinese Communist Party in 1921 and gained leadership in the mid-1940s through a series of wars and publications. He then became the most powerful governor of the socialist state of China from its establishment in 1949 until his death in 1976, as the Chairman of the Chinese Communist Party. His Marxist-Leninist theories, military strategies and political policies are collectively known as Maoism or Marxism-Leninism-Maoism, which was the core guidance of the political and cultural policies of China between the 1950s and 1970s.

was to 'serve the economic construction, which is the foundation for all other construction' (Hayhoe, 1996, p. 75). Specifically, natural sciences, engineering and agriculture were to serve directly the national industry and economy while the humanities, arts and social sciences were to promote people's political consciousness and patriotism (Fraser 1965). For this purpose, a nationwide, systematic reordering of colleges and departments was implemented between 1952-1956, with the assistance of some advisors from the Soviet Union, which resulted in a total transformation in the curricular patterns and university identities.

When the Communist government was founded in 1949, there were 227 higher education institutions left in mainland China (while a large group of scholars and students went to Hong Kong, Taiwan or overseas), including public comprehensive universities and specialist colleges, as well as some private and missionary institutions. In the reforms between 1952 and 1956, most comprehensive universities with programmes in the humanities, social sciences, basic sciences, engineering, education, agriculture, and medicine were dismembered. For example, Peking University lost most of its professional programmes, and was to teach only the humanities, arts and basic sciences. By contrast, Tsinghua University was transformed into a polytechnic university, and its main programmes in the arts and basic sciences were removed. Meanwhile, all the private and missionary institutions were closed or transformed into public institutions.

A centralised higher education system was established, consisting of five types of institutions (Chen 2010b; Fraser 1965). All the institutions were teaching-oriented, and most research activities were conducted at the Research Institute, Chinese Academy of Sciences, founded in 1949.

- **Revolutionary universities** included The People's University (Renmin University) at national level, and the institutes of political sciences and law, finance and economics at provincial level. Revolutionary universities were required to develop social sciences under the authoritative Marxist-Leninist-Maoist canon, which provided the ideological principles which all the higher education intuitions should follow, and to train socialist government officers and political education

instructors. This type of university was strongly influenced by the communist institutions during the 1940s.

- **Polytechnic universities** offered programmes in applied sciences to train engineers for industrial development. The polytechnic universities emphasised education for sound technological and theoretical knowledge as well as a socialist ideology.
- **Comprehensive universities** offered education in basic sciences and the humanities, with an emphasis on theoretical knowledge. The amount of comprehensive knowledge was very limited.
- **Normal universities** were to train teachers for primary and secondary schools. They had similar curricula to the comprehensive universities, with some additional elements in educational studies, fine arts and music.
- **Specialised institutions** provided highly specialised training in practical areas. The curricula and enrolment were decided by particular government sectors or departments such as agriculture, health, finance, justice, metallurgy, mechanical engineering or textiles, to ensure that graduates became well-trained workers in each area.

The whole country was divided into six administrative regions (Figure 2.1): North China, Northeast China, East China, South Central China, Southwest China and Northwest China. The central government appointed one leading institution for each of the five types in every region, as the regional leading institution. For example, Peking University was the leading comprehensive university for North China, Tsinghua University was the leading polytechnic university for North China, and Zhejiang University was the leading polytechnic university for East China.



Figure 2. 1 The six administrative regions of China in the 1950s¹⁷

Within each institution, 'specialisation' at the sub-departmental level became the main organising unit, replacing 'school', 'college' or 'department' in the Nationalist universities. This was a result of the Chinese socialist planned economy, which was based on the central role of hierarchical administration in guiding the allocation of resources in the economic system as opposed to the free market (Uhalley 1988). The 'specialisations' were classified by the government according to the classification of vocations in economic plans. The government also had strong control over the curriculum and enrolment of each specialisation within each institution. The specialisations resulted in narrowly-specialised curricula which were disconnected with each other (Chung 1960).

The National Higher Education Entrance Examination (NHEEE), or *gokao* was established in 1952. Students who graduated from high schools could attend the Standard National Higher Education Entrance Examination, and would enrol into a certain specialisation in a particular institution, according to their

¹⁷ Copyright: open content from Wikimedia.
https://commons.wikimedia.org/wiki/File:Regions_of_China.svg

scores in the examinations. After graduating from higher education institutions, graduates would be assigned a job based on their specialisations. Social class background was a very important indicator in the enrolment and job assignment. Students from bourgeois backgrounds were discriminated against while their peers from worker and peasant backgrounds had advantages. That said, a greater degree of equality was achieved in terms of ethnic, gender and geographical distribution.

The government also took intense political control of higher education institutions to ensure political conformity among staff and students. First, a Committee of the Communist Party was established in every higher education institution, like all the other social organisations, playing the role of the highest decision-maker. Branches of the Communist Party were established at the level of department and specialisation, as a main governance measurement. Second, a group of 'political tutors' were sent to campuses, who worked under the Committee of the Communist Party and its subsidiary department, the Communist Youth League. Political tutors were to build everyday contact with students, to support students in all the issues of their campus life, and to report their political conformity. Third, every student was required to take a set of compulsory courses in political education, which played an important role in students' enrolment and job assignment.

The 1960s saw a conflict between the Chinese government and the Soviet government. The latter withdrew all its experts and cancelled a large number of contracts and aid projects in China. As a result, some changes took place within the Soviet-style higher education system. Particularly, there was a growth of comprehensive universities, supported by provincial governments. The national government also started to select a group of 'key-point' institutions where more freedom in teaching was granted (Du 1992).

2.4.2 1966-1976: The Cultural Revolution

The Cultural Revolution between 1966 and 1976 brought chaotic changes and conflicts to social life in China. It was, to a large extent, caused by the political conflict within the Communist Party. Mao Zedong, as the Chairman of the

Chinese Communist Party, wanted to rely on activist students and workers to challenge and change the centralised Soviet system in Chinese politics and the economy which was supported by other communist leaders (Clark 2008).

As a result, in education, the value of formal education was criticised and rejected. Between 1966 and 1969, there were no new enrolments in the formal education system except for some short-term political classes. The Higher Education Entrance Examinations were discontinued from 1967 to 1977, and university enrolment after 1969 was based on recommendations from local government officers. The revolutionary universities were closed for a decade, because they were regarded by the activists as the representation of the Soviet ideology. Teaching in other types of universities was also disrupted. All the academic staff members were forced to work as labourers for several years in rural areas. Many library resources and laboratory equipment were also damaged or destroyed due the violent conflicts between different groups of student activists. The limited number of teaching activities were under the guidance of a populist and critical approach to knowledge, based on Mao's monist and dialectical views, which argued that knowledge could be generated directly from social and productive practice (Hayhoe 1987). There was an expectation of a new and revolutionary knowledge system from directly productive and social practice, to replace the disciplines and specialisations of the Western and Soviet universities. However, the result was only violence and chaos, which caused huge damage to Chinese culture and education (Barnouin 1993).

2.5 From 1978 till now: the reform stage

The Cultural Revolution ended with the death of Mao in 1976. Deng Xiaoping, another Communist Party leader, returned to power. Having been dominated by class conflicts and ideological debates for two decades, the government started to put its focus back on economic development. The following decades saw a wide range of market-oriented economic reforms, which have created a so-called socialist market economy since the 1990s. The socialist market economy is based on a predominantly state-owned sector within an open

market economy, which is therefore also regarded as a form of state capitalism by some scholars (Brodsgaard and Rutten 2017; Liebman and Milhaupt 2015). Deng explained that China was in the primary stage of socialism, an early stage within the socialist mode of production, and therefore had to adapt capitalist techniques to thrive in a global market system (Vogel 2011). The socialist market economy has brought remarkable economic success, but reforms in politics have been slower. This context is important in order to understand educational policies and reforms in China, including the recent *tongshi* education reform in Chinese research-intensive universities.

2.5.1 1977-1989: recovering from the Cultural Revolution

In a government conference on educational policies in 1977, Deng Xiaoping pointed out that education should be the priority in the government reform agenda because it would be the main force empowering China's high-tech development in future (Vogel 2011). The national education system was rebuilt in the late 1970s, to offer all children nine years free and compulsory education (six years of primary education and three years of junior secondary education), and to increase the number of students in three-year senior secondary education (academic schools and vocational schools), and higher education (universities and vocational colleges) (The Ministry of Education of China (MoE) 2017).

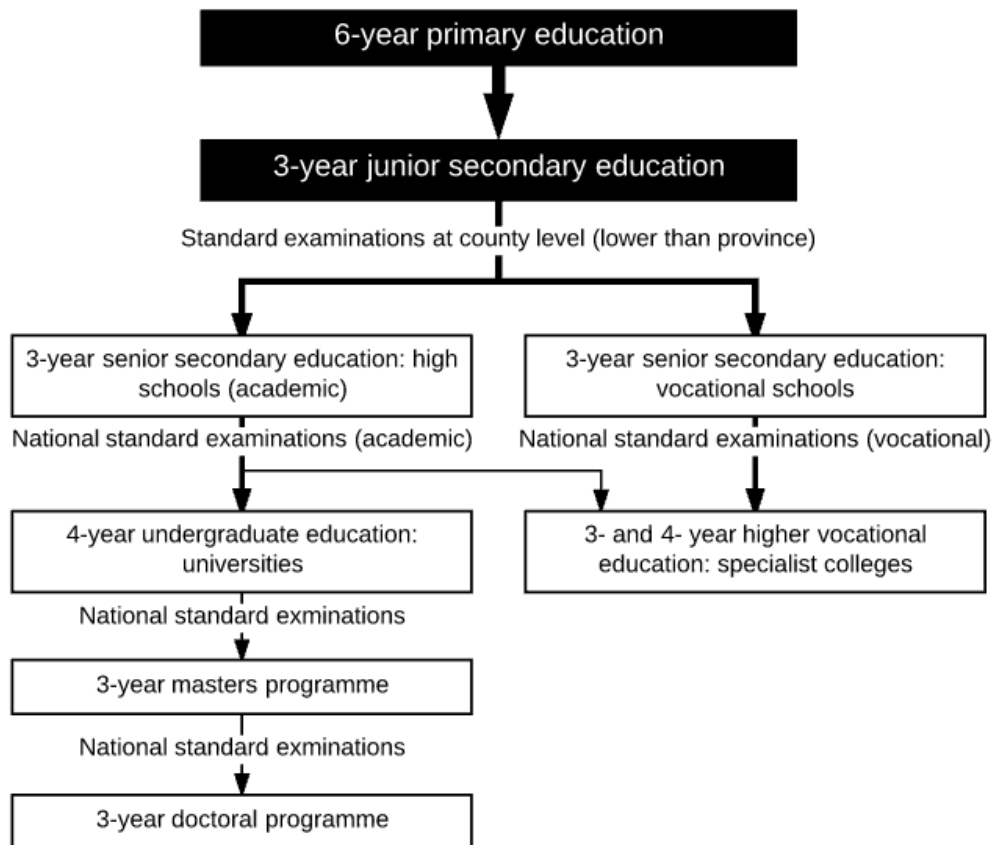


Figure 2. 2 Education system in China since the 1980s

Figure 2.2 shows China's education system since the 1980s (excluding part-time higher education for adult students). We can see from the figure that after the nine-year compulsory education, a distinction is made between the academic track and the vocational track. While specialist colleges were built with a focus on vocational training, a large number of comprehensive universities were established, to provide educational programmes and academic research in a wide range of disciplines. It should also be noted that the education system is still centralised, because enrolment and curriculum are decided by national standard examinations, which are controlled by the government.

As a result of economic development and educational reforms, the number of higher education institutions (including universities and vocational colleges) and student enrolment have increased steadily since the 1980s. Figure 2.3

shows the growth according to the statistics revealed by the Ministry of Education (2017).

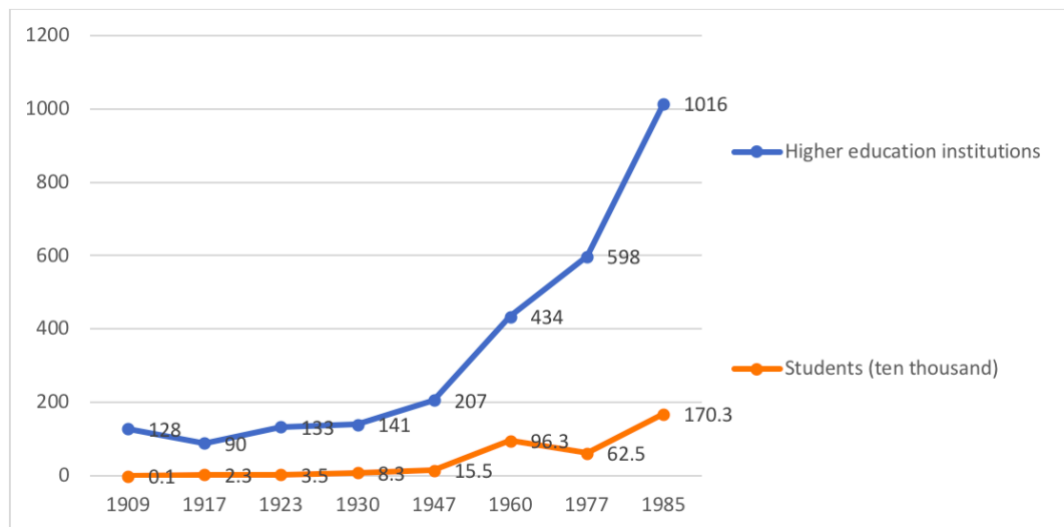


Figure 2. 3 Higher education institutions and student population in China: 1900s-1980s

Many other changes were also observed in higher education during the 1980s, including a greater degree of institutional autonomy and growing international communication (Chen 2010b). However, the optimistic changes were confronted with a political crisis which left a negative impact on universities (Sandby-Thomas 2011). The violent crisis, which is known as the Tiananmen Square Protests in June 1989, was a result of the imbalance within the social and economic reforms. According to historians (Wu 1991; Zhao 2001), the growth in the economy since 1978 had stimulated a growing civil society, where people demanded a more rapid pace of democratic reform to protest against governmental corruption. The demands were firstly expressed by the intellectuals, professionals, and university students, who were the first to be influenced by the West. However, the political reformers within the Communist Party met with disapproval from the conservative leaders. A group of university students and intellectuals organised protests on Tiananmen Square in June 1989, to try to seek communication with the government and exert pressure. However, the protests were suppressed by military force under the government's order, which led to numerous deaths, injuries and arrests of students. The communist leaders regarded the protest to be a result of the

failure of ideological control in university campuses. Therefore, in the following decades, institutional autonomy and academic freedom were once again removed from campuses, which had been fundamentally changing Chinese higher education, with regard to educational purpose, curriculum, social involvement and administration.

2.5.2 Development of higher education since the 1990s: mass higher education, marketisation, and internationalisation

After the 1989 political crisis, the government continued the policies of economic development and political control, meanwhile emphasising the agenda of improving China's competency in the global world, with the discourse of preparing for the global knowledge economy of the twenty-first century (Shambaugh 2013). As a result, three major changes have been observed in Chinese higher education: a mass higher education system, a series of market-oriented changes, and internationalisation.

- Moving to a mass higher education system

According to the statistics released by the Ministry of Education of China (MoE) (2017), the size of Chinese higher education system has been experiencing a dramatic growth since the late 1990s, in terms of the student enrolment in undergraduate and postgraduate education, the number of academic staff members, and the number of higher education institutions (for more details see Appendix Table 2-A).

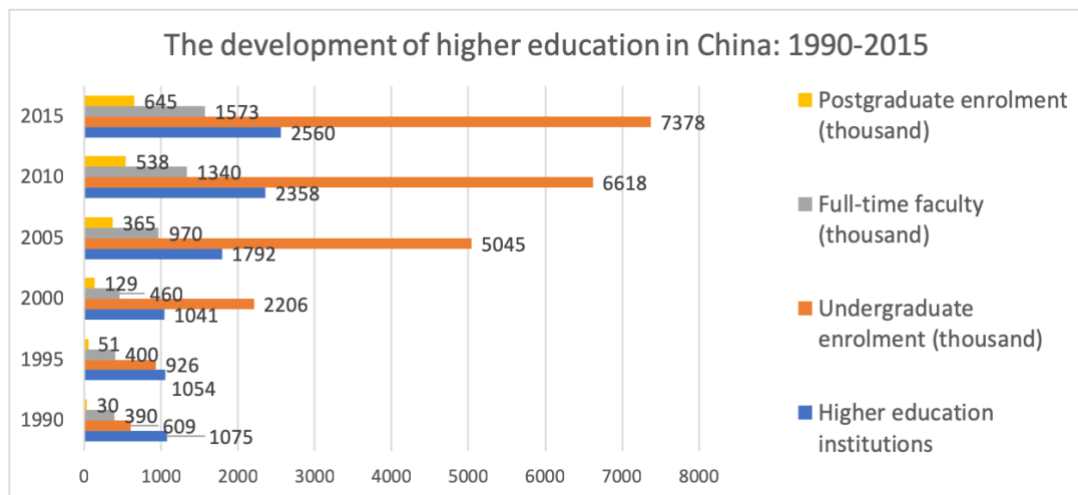


Figure 2. 4 The development of higher education in China: 1990-2015

In 1990, around 609,000 students entered higher education institutions in China for undergraduate education – 3.45% of the 18-22 age group. From 1999, China saw a sudden and dramatic expansion in student enrolment, which lasted for one decade. As a result, in 2002, more than 3 million students enrolled in higher education – more than 15% of the 18–22 age group, approaching what Trow (1973) defined as ‘a mass higher education system’. In 2010, more than 6.6 million students were enrolled – 30% of the 18-22 age group. In 2015, the ratio reached 40%. The expansion in undergraduate enrolment has also significantly enlarged postgraduate enrolment and staff population.

The expansion of student enrolment was directly driven by the national government, but the actual increasing speed has exceeded its original plan, which was to reach 15% enrolment in 2010 (Yan 2010). According to some scholars (Postiglione 2015; Wan 2006), the purpose of enrolment expansion was mainly based on economic considerations, to sustain the pace of economic growth of China with well-trained human resources, to accommodate the increasing population of secondary education graduates, which had exceeded the market needs, and to make profit from tuition fees.

A large number of colleges and universities were built, including private institutions. While there were only 1016 higher education institutions in 1985, the number rose to 2,560 in 2015, including 1,079 universities and 1,481

vocational colleges (MoE, 2017). Apart from a group of prestigious universities, the size of most universities and colleges has also increased to receive more students with enlarged campuses. Moreover, dozens of universities which were changed into specialist institutions in the 1952 reform which built Soviet-style higher education, were allowed to change back into comprehensive universities again in the late 1990s, resulting in some major national universities, such as Zhejiang University and Sun Yat-Sen University.

- Market-oriented changes

Some scholars have argued that there are three important factors in Chinese higher education, which indicate that the system has been approaching marketisation since the 1990s (Mok 2013; Mok and Lo 2007; Yin and White 1994). Firstly, **tuition fees**. From 1997 onwards, all students are required to pay for higher education, which had been free since 1949¹⁸. Secondly, **a free labour market**. Before 1996, graduates of higher education would be assigned a job according to their specialisations, which meant that in most cases they did not need to, and were not allowed to, seek a job. With the reform in state enterprises since the 1980s and the growing population of graduate students, the work allocation system was abolished in 1996 and since then, graduates have had to find their own employment opportunities in the labour market. Thirdly, **the funding system for higher education**. It has been pointed out that the government's funding has been decreasing while student tuition fees have been increasing (Mok 2013; Mok and Lo 2007).

In China, higher education revenue generally comes from four sources: (i) appropriations by national and local governments, (ii) tuition fees, (iii) private donations, and (iv) others, from sources such as state and local contracts, auxiliary enterprises, hospitals, and educational services such as open learning programmes. According to the records published by the National Bureau of Statistics of China (2017), I traced the changing proportions of each

¹⁸ Some students could pay for tuition fees to enrol in a certain university when they failed to reach the required scores in the National Higher Education Entrance Examination.

funding source between 1998 and 2012, as is shown in Figure 2.4 (for more details see Appendix 2-B),

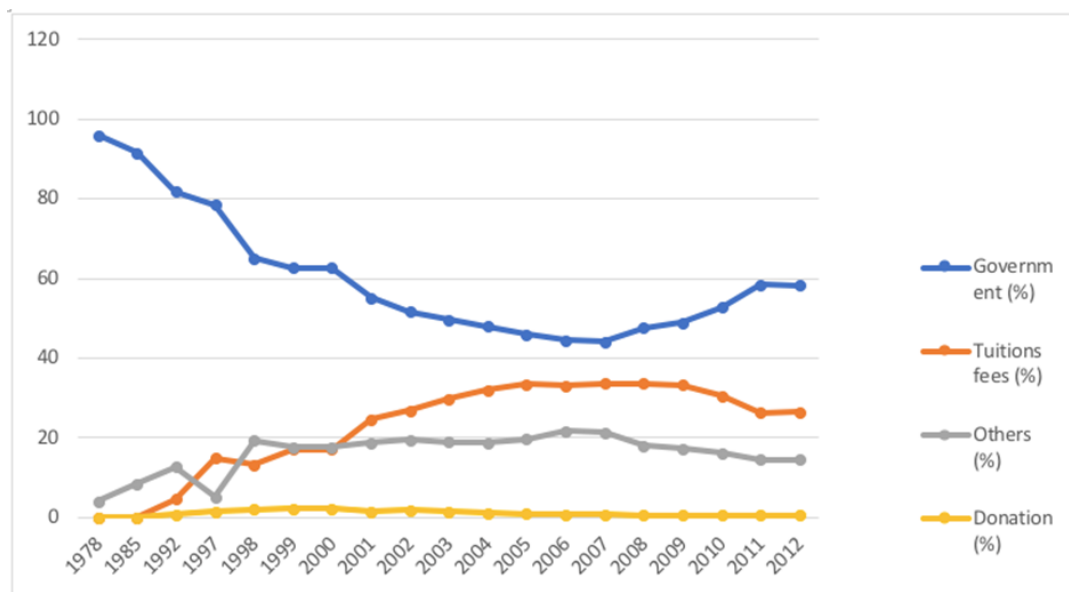


Figure 2. 5 The main funding resources of higher Education: 1998-2012

We can see that after 2000, student tuition fees have become the second largest source of educational funding, while the government's funding has been generally decreasing. Particularly during 2004 to 2008, government funding made up less than 50% of educational funding. However, since 2007, government funding has started to increase again, back to around 60%. Reading from Figure 2.3 and 2.4, we can find that the decade between the late 1990s and late 2000s was particularly characterised by market-oriented reforms, driven by the government's policy of expanding student enrolment, building private institutions, and charging tuition fees. However, these changes were slowed down from the late 2000s, as a result of the slowed economic development in China.

Compared with the educational system before the 1980s, the market, institutions and students have gained more power over enrolment and curriculum (Law 2014). However, governmental control of universities still remains quite strong. The government can appoint and remove senior policymakers and administrators of universities, and can impact on institutional

policies through the Committee of the Chinese Communist Party within each institution, which is still the highest institutional decision-maker.

- Internationalisation, globalisation and ‘world-class universities’

As a part of Deng Xiaoping’s economic reform, China has rebuilt connections with the Western world since the late 1970s, and became a member of the World Trade Organization (WTO) in 2001 in order to join the global market. Therefore, internationalisation and globalisation have become important rationales underlying higher education development.

Internationalisation of Chinese higher education has mainly been manifested in various forms of cross-border communication and links between Chinese institutions and overseas institutions. Yang (2014) identified three forms of internationalisation observable in Chinese higher education. Firstly, there has been a considerable growth in the number of students and staff members going abroad for conferences, competitions, visitor projects and degree programmes. Secondly, universities have spent more effort integrating an international element into university curricula and student experiences through introducing foreign textbooks, academic journals and other academic resources, adopting international professional accreditation frameworks, inviting and recruiting foreign scholars, and developing academic programmes taught in the medium of the English language (Knight 2004). Thirdly, an increasing number of cross-border educational programmes and research projects have been built in many Chinese universities, in cooperation with overseas universities.

Globalisation of Chinese higher education refers to the process where Chinese higher education institutions, particularly universities, take part in the global higher education market, to compete across borders for staff, students and research funding and prestige (Marginson 2011). Like some other Asian governments, the Chinese government has selected, and invested in, a group of universities to develop them into world-class universities, to become powerful actors in globalisation (The Ministry of Education of China (MoE) 1998).

The selection was made through two national projects: Project 21/1 and Project 98/5. Project 21/1, officially launched in 1995, selected 100 top Chinese universities and offered financial support to update their physical equipment and to improve educational quality to reach an international standard (Li 2012). Project 98/5, launched in 1998, was driven by a proposal by the then President of China, Jiang Zemin, that China should make efforts to build world-class universities. Nine universities were selected initially and then the number increased to 43.

These universities were selected through a rigorous process, whereby each institution had to demonstrate its strengths and potential. Once enlisted, it could receive extra resources provided by both the national and provincial governments (Zhang et al. 2013). These universities have identified themselves as research-intensive universities, to distinguish themselves from other teaching-oriented universities (Kang et al. 2016). In this sense, the research-intensive universities have been reshaping the structure of Chinese higher education, as is shown in figure 2.5. The research-intensive universities stand at the top of the system as the elite group, receiving the best staff members and students, as well as extra public funding.

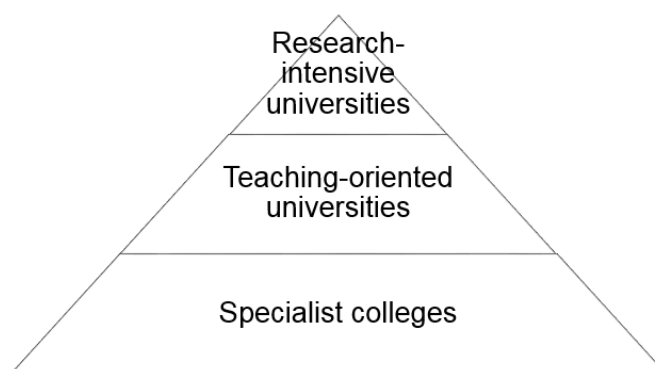


Figure 2. 6 The hierarchy of Chinese higher education institutions

Some scholars have pointed out that Chinese research-intensive universities have been learning from the top-ranked research-intensive universities across the world, mostly in the US and Western Europe, to seek to learn from their undergraduate education, postgraduate education and research activities (Gong and Li 2010; Yan 2010; Zha 2012). *Tongshi* education reforms were

initiated in some of the research-intensive universities in the late 1990s. Therefore, like some other scholars, I believe that globalisation and the government agenda of building world-class universities are important factors underlying *tongshi* education, and need to be carefully considered in order to attain a better understanding of the rationales for *tongshi* education.

2.6 Summary

In this chapter, I first reviewed traditional Chinese education which covers more than 2000 years from around 500 BCE to the first half of the 19th century. I found that some elements, such as the Confucian ideas of educational purpose and pedagogy, and the tradition of private academies, *shuyuan*, can be found in today's *tongshi* education reforms. I then discussed the various reforms from 1860 to 1978, initiated by different governments, i.e., the imperial government, the nationalist government, and the socialist government, which explored different ways of transforming Chinese culture. This period of history was characterised by cultural conflicts (Hayhoe, 1996), which can shed light on our understanding of the cultural dynamics underlying modern Chinese higher education. The review of the changes and reforms in the past four decades provides the most recent background for *tongshi* education, such as the context of a market-oriented mass higher education system, the political control from the communist government, and the agenda of globalisation, manifesting themselves as important forces driving *tongshi* education reforms in Chinese research-intensive universities.

Based on the history of Chinese education, this chapter provides a general account of the important contextual factors of *tongshi* education reform. It lays the foundation for my case study, which will explore the process of how the different factors interact and shape *tongshi* education within a complex organisation.

Chapter 3 Literature review and research rationale

3.1 Introduction

During the last two decades, *tongshi* education has been an important topic in the discussion of university curriculum changes in China. To critically examine the discussion, I searched existing studies on *tongshi* education in both Chinese and English, the two languages I speak and read fluently. Most studies I collected were published in Chinese.¹⁹ A limited number of studies and reports in English (by both Chinese scholars and Western scholars) were also found, most of which were conducted in the last five years and used different terms, including ‘*tongshi* education’ (e.g. Zhang, 2012), ‘general education’ (e.g. Liao, 2012), ‘liberal education’ (e.g., Stephen 2013), and ‘liberal arts education’ (You 2014). The existing studies have addressed and explored several important questions, which will be reviewed from the following two aspects.

- What is the meaning of *tongshi* education? What is the relationship between *tongshi* education and the Western concepts, i.e., general education, liberal education and liberal arts education?

In Section 3.2, I will first trace the history of the term ‘*tongshi* education’, to see why and how the term was adopted and became popular in Chinese higher education. Its literal meanings and cultural connotations will be elaborated to show the underlying richness and complexity. I will also explain the reasons that I choose the term ‘*tongshi* education’ instead of its English translation, ‘general education’ or other terms when writing in English in my thesis. In Section 3.3, I will summarise and compare the various formal definitions of *tongshi* education made by scholars, which show different links to the Western general education, liberal education and liberal arts education, as well as Chinese traditional education.

¹⁹ Studies on *tongshi* education in Hong Kong and Taiwan were also searched. However, for the purpose of relevance, in this chapter I will focus on those in mainland China. A few studies on *tongshi* education in Hong Kong and Taiwan will be mentioned when it is necessary.

- What are the changes that the *tongshi* education reform has brought to the curriculum, administration, and institutional culture at Chinese universities? What are the problems and difficulties in implementing *tongshi* education?

Section 3.4 reviews the discussions on the institutional strategies and outcomes of *tongshi* education reforms in different Chinese universities. The problems and their causes identified by existing studies will be discussed. In Section 3.5, I will address two considerable limitations of existing studies, followed by a discussion of how the existing studies inform my research questions and design.

Before moving to the next section, it is important to clarify here that most existing studies have been focused on *tongshi* education reforms in research-intensive universities rather than in other types of higher education institution. The reason lies in the fact that *tongshi* education was firstly initiated in several top research-intensive universities in China, and currently, it is in research-intensive universities where new strategies of *tongshi* education are being explored. Although an increasing number of teaching-oriented universities have also started to adopt *tongshi* education, they tend to copy from the research-intensive universities (Lu 2016b). Therefore, the reforms in research-intensive universities have been of most interest to scholars. In this thesis, unless noted otherwise, the discussion pertains to *tongshi* education in Chinese research-intensive universities.

3.2 What is ‘*tongshi*’ in Chinese and why is this term used in this study?

3.2.1 The usages of the term ‘*tongshi*’

As was mentioned at the beginning of the first chapter, ‘*tongshi*’ is the Romanised form of the Chinese term ‘通识’. It refers to the current reform in Chinese universities, which is aimed at transforming the narrowly-specialised and vocationally-oriented curriculum. It has also been used as the Chinese translation of the Western concepts of ‘general education’ and ‘liberal education’ by many scholars and policymakers.

The term is comprised of two ideograms, ‘*tong*’ (通) and ‘*shi*’ (识). While the two ideograms were used separately in some ancient educational texts, the term ‘*tongshi*’ itself was created until more recently. According to the earliest reference that I have found, the term was first used in 1941, during the Nationalist period, in an article by the then president of Tsinghua University, Mei Yiqi, and his colleague Pan Guangdan. I have translated the following paragraph where they explained the idea of ‘*tongshi*’:

‘*Tongshi* prepares for one’s general aspects of life, while specialism training prepares for one’s specialised vocation. *Tongshi* aims for more than one’s material flourishing, but more importantly, an integrative and comprehensive understanding of oneself. In this sense, *tongshi* is the ultimate purpose of university education, while specialist training is the beneficial end that university education brings. What a society needs from universities, first and foremost, is graduates who are cultivated through *tongshi*, who are more than skilful specialists. If specialists do not have *tongshi* as the foundation of their education, they will not be able to contribute to leading and modernising our nation and people, but rather, may cause chaos’.

(Mei and Pan 1941)

Both Mei and Pan had educational experiences in US universities.²⁰ It is reasonable to assume that they might be referring to the liberal education tradition in US higher education, although in this article there is no direct evidence that ‘*tongshi*’ was used as the translation of ‘general education’, ‘liberal arts education’ or ‘liberal education’.

In 1949, another Chinese scholar, Qian Mu, also used the term ‘*tongshi*’ to explain the educational goals, when he established the New Asia College in Hong Kong, after moving from Beijing as the Nationalist government was replaced by the Communist government in mainland China (Qian 2004). The New Asia College emphasises studies on Chinese traditional culture, and today has become a part of the Chinese University of Hong Kong, which is one of the co-founders of the University Tongshi Education Association in China, cooperating with mainland Chinese universities in *tongshi* education. During the 1940s, ‘*tongshi* education’ was used interchangeably with some other

²⁰ Mei studied at Worcester Polytechnic Institute between 1911-1914 as an undergraduate student; Pan studied at Dartmouth College as an undergraduate student and then Columbia University in the City of New York as a postgraduate student, between 1922-1926.

terms such as '*tongcai*' and '*tongren*'. All of these terms were adopted and adapted from traditional Chinese text, referring to a general understanding of traditional and modern knowledge.

In the following decades, from 1949 to the late 1980s, the term '*tongshi* education' disappeared in mainland China because of the radical socialist reforms (Chen et al. 2008; Li 1999; Pang 2009). During that time, education was expected to directly serve the socialist economic development, and higher education institutions were to offer specialised and vocational curricula, leaving no space for *tongshi* education. The educational prestige of the Nationalist period, including *tongshi* education, was criticised and devalued. Moreover, cross-border contact with the Western world, Hong Kong or Taiwan was very limited, because these areas were regarded as the capitalist world and were enemies to the socialist states. As a result, the idea and practice of *tongshi* education were forbidden and ignored in mainland China (Chen and Liu 1987).

It was during the 1980s, as a result of the reforms in economy and internationalisation, that scholars in mainland China started to pay attention to the undergraduate curriculum in the US and in Hong Kong and Taiwan again. At first, scholars translated 'general education' into '*putong* education' and '*yiban* education' (Chen 2006; Li 1999). '*Yiban*' and '*putong*' literally mean 'common and general' (Chen and Liu 1987). Since the early 1990s, the Chinese term '*tongshi* education' was introduced to refer to Western general education, liberal education and liberal arts education (Li, 1999). With an increasing interest in learning from the international universities in the US and Hong Kong, Chinese policymakers and scholars used the term '*tongshi* education' to name the curriculum changes in Chinese universities (Li, 2006).

3.2.2 The literal meanings of '*tong*' and '*shi*'

In the last section, several terms were mentioned which were used interchangeably with '*tongshi* education': '*tongren* education', '*tongcai* education', '*yiban* education', and '*putong* education'. So why has the term '*tongshi* education' gradually become popular and replaced the others? The

literal meanings and cultural roots of the term might justify the choice. Because ‘*tongshi*’ is a relatively new phrase, it has not been included in the Chinese and English dictionaries, according to my search. Therefore, I will examine the literal meanings of ‘*tong*’ and ‘*shi*’, and how they were used in traditional educational contexts, to give a more detailed explanation of the term ‘*tongshi*’. The process of returning to the root of the phrase has helped me, a Chinese researcher, to reflect critically upon the rich meanings of the term. Many scholars have taken it for granted that ‘*tongshi* education’ is the translation of the Western ‘general education’, thus ignoring the unique meaning of ‘*tongshi* education’ itself. This section is also intended to help Western readers to learn more about the historical and cultural backgrounds of the term.

I consulted five Chinese-English dictionaries for a comprehensive reference, edited by both Chinese and English scholars: *Lin Yutang’s Chinese-English Dictionary of Modern Usage* (Lin 1972); *A New Century Chinese-English Dictionary* (Hui 2004); *New Age Concise Chinese-English Dictionary* (Pan 2002); *ABC Chinese-English Comprehensive Dictionary* (DeFrancis 2003); and *The Oxford Chinese Dictionary English-Chinese, Chinese-English* (online access through University of Edinburgh Library) (Kleeman and Yu 2010).

- ‘*tong*’

According to the five dictionaries, ‘*tong*’ has the following meanings.

- As a verb: ①to communicate with, to connect with; ②to join, to share; ③to understand thoroughly, to master; ④to be interchangeable with; ⑤to open up or clear out by poking or jabbing;
- As an adjective: ⑥unblocked, through; ⑦thoroughly conversant with subject, competent in understanding knowledge and writing; ⑧all, entire, whole; ⑨common, general.

As a modern term, ‘*tong*’ in ‘*tongshi*’ serves as an adjective. However, in the ancient Chinese language, the grammatical division between a ‘verb’ and an ‘adjective’ was not as clear as in the modern usages.

‘*Tong*’ has long been used in Chinese history to describe a person of wide knowledge and sound scholarship, particularly based on the meanings ③and ⑦. Scholars with the quality of *tong* were called ‘*tongren*’ or ‘*tongcai*’ – a

person of *tong* – in the classical texts, such as *Zhuangzi* in the late Warring States period (476–221 BCE) and *Lunheng* in 80 CE. A scholar with the quality of ‘*tong*’ has developed a thorough and deep understanding of the principles of the natural and social world which, in traditional Chinese philosophy, are interconnected. The scholar not only has a deep understanding of the existing schools of philosophy, but also is able to see their differences and connections, and their contributions and limitations, thus critical and new knowledge is possible. His understanding of the world is not limited by certain doctrines, and his actions are made consciously, following his moral principles and in accordance with the specific situation. Such a status of intellectual enlightenment is achieved through a wide reading, as well as continuous reflection and practice. ‘*Tongshi*’, knowledge of *tong*, as a new term, was started to be used in the higher education sector since the 1990s, with ‘*tong*’ having the same cultural root.

In section 3.2.1, I mentioned that in the 1980s ‘general education’ was translated into ‘*putong* education’ in mainland China. The ‘*tong*’ in ‘*putong*’ is based on the meaning ⑨ ‘common and general’, with no attachment to the cultural richness discussed above. That is probably why the translation ‘*putong*’ was abandoned.

- ‘*shi*’

The two traditional terms, ‘*tongren*’ and ‘*tongcai*’, were still popular in use during the 1920s-1940s, and were sometimes used as the translation of the Western ‘liberal arts education’. For example, in Lin Yutang’s Chinese-English Dictionary of Modern Usage (1972), the term ‘*tongcai*’ was translated as ‘a person who receives liberal arts education’. However, the two terms have been replaced by ‘*tongshi*’ since the 1990s. Given that the three terms share the same element ‘*tong*’, it is reasonable to assume that the other ideogram, ‘*shi*’, makes the distinction.

‘*Shi*’ has the following meanings according to the five dictionaries:

- As a verb: ① to know, to understand;

- As a noun: ②knowledge; ③insight, recognition of (truth), real understanding power of discrimination.

‘*Shi*’ serves as a noun in the term ‘*tongshi*’. In Chinese traditional texts, ‘*shi*’, usually refers to ‘insight’ – the capacity to gain an accurate and deep understanding of fundamental principles and overall situation – and particularly to make correct judgements of major changes or tendencies. It is different from the modern concept of academic and disciplinary knowledge.²¹ However, since the 20th century, ‘*shi*’ has been increasingly used to refer to modern knowledge, particularly theoretical, disciplinary and academic knowledge. Many Chinese scholars therefore take ‘*shi*’ as ‘disciplinary knowledge’ in the term ‘*tongshi*’. To them, ‘*tongshi*’ means comprehensive and interconnected knowledge (Zhang 2012), and in the current context of specialised university curriculum, ‘*tongshi*’ implies a general understanding of all the important knowledge domains through multidisciplinary learning (Chen 2006).

In this sense, the term ‘*tongshi*’ embodies a combination of the traditional idea of the scholar quality (*tong*) and the modern idea of knowledge (*shi*), while ‘*tongcai*’ and ‘*tongren*’, which were originally traditional terms themselves, mainly refer to education for generalists who master every domain of knowledge, which is regarded as impossible within the context of the explosive development of modern knowledge (Chen, 2006). Therefore, the term ‘*tongshi*’ is preferred over ‘*tongcai*’ and ‘*tongren*’ now.

The choice of term can reflect the cultural changes underlying higher education. In Chapter 2, I mentioned that since the late 20th century, many traditional terms in Chinese education were replaced by modern terms for the purposes of Westernisation, and since the 1950s many terms have been learnt from the Soviet Union. Now the choice of the term ‘*tongshi*’, seems to indicate an effort to integrate Chinese traditional education into modern universities.

²¹ To make a clearer distinction, in Chinese classical texts, ‘*li*’ and ‘*dao*’ might be the proper translations of ‘knowledge’ and ‘truth’. ‘*Li*’ originally means pattern, and refers to the principles of the natural and social world; ‘*dao*’ originally means road and way, and could refer to the fundamental way of how the universe and society work.

3.2.3 The relevant concepts: ‘liberal education’, ‘liberal arts education’, ‘general education’ and ‘education for cultural quality’

Various terms were mentioned in above sections which have been used by different scholars in the discussion of *tongshi* education. In many cases these terms are used interchangeably, without a critical examination on their differences. For example, in English literature, when referring to the same curriculum reform in Chinese universities, some scholars used ‘*tongshi* education’ (e.g. Zhang, 2012), some adopted ‘general education’ (e.g. Liao, 2012), a few used ‘liberal education’ (e.g., Stephen 2013), and some used ‘liberal arts education’ (e.g., Postiglione 2013; You 2014). In Chinese literature, some scholars adopted ‘*tongshi* education’ as the translation of ‘liberal education’, ‘liberal arts education’ and ‘general education’, while others have tried to translate them differently. The mixed and confusing usages of different terms in the discussion of *tongshi* education reflect the complicated relationships underlying these educational ideas and practices. In this section, I will summarise connections among the key terms to draw a clearer conceptual map in the discussion of the meaning of *tongshi* education.

In Figure 3.1 I list the most relevant terms that have been used in the discussion of *tongshi* education. In the three textboxes of black background there are the three terms that are from English context, and in the boxes of white background are the terms are from Chinese context. In the round textboxes of dotted line there are terms that were adopted in earlier periods but are now less used.

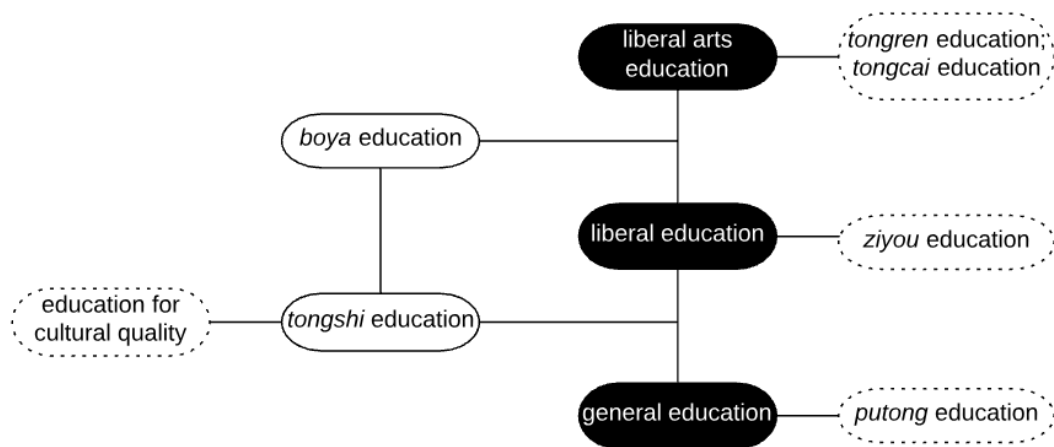


Figure 3. 1 The relevant terms in the discussion of *tongshi* education

- Liberal arts education, liberal education and general education

In the 1990s and early 2000s the differentiation among the three English concepts, i.e., liberal education, liberal arts education and general education was less recognised or discussed by most Chinese scholars, who thus used ‘*tongshi* education’ to refer to all the three. It is since the last decade that the differences and connections have gradually been discussed. In this part I will first give brief review of the relationships of the three concepts based on my reading of English literature, and then summarise how they have been translated and explained in Chinese studies.

The meanings of and relationships between liberal education, liberal arts education and general education have long been a topic for discussion in English literature. **The liberal arts**, originating in classical antiquity, are subjects or skills that were considered essential for a free person in order to take an active part in civic life (for ancient Greece), included participating in public debate, defending oneself in court, serving on juries, and most importantly, military service (Kimball 1995, 2010). In mediaeval universities, the core liberal arts include grammar, logic, and rhetoric (the *trivium*), while arithmetic, geometry, music, and astronomy also played a – somewhat lesser – part in education (the *quadrivium*) (Axelrod 2002). Many US higher education institutions today still provide liberal arts degree program, containing subjects such as literature, philosophy, mathematics, and social and physical sciences.

Liberal arts education refers to studies not relating to the professional, vocational, or technical curriculum.

Liberal education, based on the medieval concept of the liberal arts and the liberalism of the Age of Enlightenment, is to cultivate free mind. Liberal education was advocated in the 19th century by thinkers such as John Henry Newman and Thomas Huxley, who defined the value of liberal education for personal enrichment. In its long history liberal education has been experiencing declines, renewals, criticisms and reinterpretations, which has resulted in complexity in its idea and practice (Axelrod 2002; Carnochan 1993; Leslie 2011; Zakaria 2015). According to the latest definition made by the Association of American Colleges and Universities (AAC&U), a major networking organisation dedicated to liberal education, a liberal education in the 21st century is

‘...an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change. It provides students with broad knowledge of the wider world (e.g., science, culture, and society) as well as in-depth study in a specific area of interest. A liberal education helps students develop a sense of social responsibility, as well as strong and transferrable intellectual and practical skills such as communication, analytical and problem-solving skills, and a demonstrated ability to apply knowledge and skill in real-world settings.’²²

(Association of American Colleges & Universities 2018)

With the premium and emphasis placed upon mathematics, science, and technical training, there was a decline of the humanist liberal education during the Second World War in the United States (US). However, in the mid-20th century, **general education** has become central to much undergraduate education, with the publication of the important document *General Education in A Free Society* by the Harvard University Committee on the Objectives of a General Education in a Free Society (1946). While some scholars argue that

²² An earlier definition by the AAC&U which has been widely cited and I personally favour, is: ‘liberal education has been a philosophy of education that empowers individuals, liberate the mind from ignorance, and cultivate social responsibility. Characterised by challenging encounters with important issues, a liberal education prepares graduates both for society valued work and for civic leadership in their society... By its nature, liberal education is global and pluralistic. It embraces the diversity of ideas and experiences that characterise the social, natural, and intellectual world. To acknowledge such diversity in all its forms is both an intellectual commitment and a social responsibility. For nothing less will equip us to understand our world and to pursue fruitful lives’ (Cited in Sloan, 2013).

there are fundamental distinctions between liberal education and general education in terms of assumptions, ideological orientations, pedagogical methods, curricular structures, and ultimate aims (e.g., Erickson 1992), many other scholars regard general education as one form or approach of liberal education (e.g., Boning 2007; Mulcahy 2009b; Newton 2000), which provides broad exposure to multiple disciplines and learning strategies in addition to in-depth study in at least one academic area.

Most Chinese scholars believe that general education is a continuation of, and the modern form of, liberal education, functioning in a mass higher education system (e.g., Chen 2006; Li 1999). It is agreed that liberal education focuses more on the cultivation of a student's humanity and good personality (Xu and Ji 2004), while general education mainly responds to the problems caused by modernisation and specialisation in knowledge (Chen 2006; Li 1999; Shen 2011; Zhong and Wang 2017). Dong (2014) also argues that general education prevailing in the US is influenced by the American philosophy of pragmatism, while liberal education is rooted in the English tradition of cultivating gentlemen.

Recently, in many Chinese studies, 'general education' is translated into '*tongshi* education'; while 'liberal arts education' and 'liberal education' translated into '*boya* education' or '*ziyou* education'. '*Boya*', like '*tongshi*', consists of two ideograms which were used in the ancient Chinese educational texts. '*Bo*' literally means 'to possess a wide knowledge of' (verb) and 'abundant' (adjective), and '*ya*' as 'elegant and cultured' (adjective). Some scholars have pointed out that the ideal Confucianism education is characterised by '*boya*' (Wu 2011). There is also a small body of literature comparing the Confucian education and the Western liberal arts education (Chen 2014; Yin 2007).

In contrast, '*ziyou*' is a modern term borrowed from Japanese. It means 'free and liberal' (adjective) and 'freedom' (noun). Therefore, '*boya* education' explains the Western 'liberal arts education' through making an analogy to Chinese traditional education, while '*ziyou* education' is more like a literal

transition of the term 'liberal education'. Although the two terms were, at one time, used interchangeably by scholars, recently the term '*boya* education' seems to become more popular. Some leading universities started to choose '*boya* education' as a more specific term for their *tongshi* education reforms, to emphasise the traditional connection and the uniqueness of their practice. For example, Sun Yat-Sun University named its pilot programme the '*Boya* Programme' and Fudan University hosted the Symposium on *Boya* Education in 2016. In this light, '*boya* education' is regarded as a particular form of '*tongshi* education' which puts more emphasis on classical readings both in Chinese and Western cultures (Zhang and Feng 2016).

- Why the term '*tongshi* education' was chosen to be used in this thesis

I have chosen to use the Romanised term '*tongshi* education' as the key concept in this thesis, instead of choosing English terms 'general education', 'liberal education', 'liberal arts education'. Although I agree that the English terms could smooth the cross-cultural communication, so that English readers can quickly grasp the basic idea of *tongshi* education, there is the risk of reducing the richness, distinctiveness, and complexity of *tongshi* education, which is rooted in its Chinese context. For example, had I taken it for granted that 'general education' is the English translation of '*tongshi* education', I might just have ignored its literal meanings in Chinese.

This thesis aims at critically exploring the meanings and implications of *tongshi* education in Chinese research-intensive universities, as I will explain in the following sections. For this purpose, I believe it is necessary to use '*tongshi*', which is an unfamiliar term to me and to readers, to emphasise the potential distinctiveness of *tongshi* education. In my research, I use the term '*tongshi* education' whenever the reforms on Chinese campuses are referred to, while the terms 'liberal education' or 'general education' will refer to ideas and practices in Western universities and other areas such as Singapore and Malaysia.

- Education for cultural quality

Another term listed in Figure 3.1 is 'education for cultural quality', which was important in the early discussion of *tongshi* education. 'Cultural quality' refers to a student's general understanding of knowledge in the humanities and arts, and social sciences, which is believed to be an important element of students' well-rounded development (Cao 2007; Cheng 1998; Lin 2010). 'Education for cultural quality' was first proposed by a group of scholars and administrative leaders in some polytechnic universities in the early 1990s, where the majority of the undergraduate students were enrolled into programmes of sciences, engineering and agriculture for vocational training. It was pointed out that the university curriculum was problematic to only offer narrowly specialised contents in science and technology (Lin 2010). It was advocated that there should be an introduction to the humanities, arts and social sciences in the formal curriculum and extra-curricular activities. The proposal was then adopted by the Ministry of Education of China, and was implemented as a national project since 1995 in all the Chinese higher education institutions (Chen et al. 2008; Li 2006).

It should be noted that the term 'cultural quality' is one of the socialist jargons used in government documents since 1949 which describe the qualities for a graduate of well-rounded development. Other qualities include 'political quality', 'moral quality', 'physical quality' and 'psychological quality' (Cao 2007). In specific, 'political quality' mainly refers to a student's conformity to the governmental ideology; 'moral quality' refers to a student's moral character, among which altruism was particularly emphasised to contribute to the collective community; 'physical quality' refers to a student's physical fitness, which was described in the governmental documents as the foundation for the wellbeing of the individual and society; and 'psychological quality' refers to the mental health of a student, with a particular emphasis on being able to concentrate and persevere in difficult situations.

'Education for cultural quality' was a live topic between the 1990s and early 2000s, especially after it was launched as a national project after 1995. However, the discussion has been fading since 2005. Pang (2009) observed

that the term ‘education for cultural quality’ had been used far less in academic journal articles since 2005, while ‘*tongshi* education’ started to be used more frequently from the same time. Therefore, some scholars have argued that *tongshi* education is the development of education for cultural quality, sharing the same core of students’ well-rounded development (Li 2006; Lu 2016b).

However, some other scholars have emphasised the differences between *tongshi* education and education for cultural quality (Chen 2006; Chen et al. 2008; Pan and Gao 2002; Wang 2006, 2009). According to Pan and Gao (2002), education for cultural quality focuses on the development of a student’s character and personality, while ‘*tongshi* education’ is concentrated on the intellectual development of a student because of its emphasis on knowledge. They also believe that ‘cultural quality’ is rooted in traditional Chinese education, while *tongshi* education is borrowed from the West. Chen (2008) pointed out that education for cultural quality is mainly limited to the humanities and arts, and social sciences, while *tongshi* education covers all the main knowledge domains.

Although the term ‘education for cultural quality’ has been used less in Chinese universities or national policy documents, it is important to acknowledge the historic link, i.e., the current curriculum of *tongshi* education was developed, at least partly, based on the group of courses education for cultural quality, as will be described more detailed in the case in Chapter 5. It might also be reasonable to assume, that underlying the replacement of the terms, there is perhaps a subtle change on the ideologies, from a very strict socialist ideology to a system which is more open to the Western cultures and China’s own traditions.

3.3 Definitions of ‘*tongshi* education’ in existing studies

In this section I will review the large body of literature on the ideas of ‘*tongshi* education’, from which I derive four definitions. These definitions not only describe the purposes, values and contents of *tongshi* education but also indicate the imperatives for the curriculum reform.

3.3.1 Definition 1: *tongshi* education is to cultivate desirable qualities of students.

In this definition, *tongshi* education is aimed at cultivating desirable qualities of the student, which is regarded as the foundation of the individual's wellbeing, and a harmonious society. In particular, some scholars refer to the Confucian concept '*junzi*' to elaborate the ideal personality (Gao 1994; Hu 2009; Huang 2001). As mentioned in Chapter 2, according to Confucianism, among many other virtues such as being intelligent, moral, responsible, conscientious, courageous, and modest, one important quality of a *junzi* is '*buqi*' – not to be a tool or an instrument. That is, higher learning is for personal development of intrinsic value. Students should not be limited to the specific skills they learn, but rather, to be able to explore the meaning of life and a meaningful way of being through higher learning, to fulfil their highest aspirations as opposed to lower and common needs. The student enjoys learning intrinsically regardless of the pragmatic benefits it brings.

Such a *tongshi* education is necessary in modern university education, because it is held that a specialised and vocationally-oriented curriculum is concentrated only on the intellectual development of a student and is aimed at preparing a student for a specific career (e.g. a lawyer, an engineer, or a biologist), but fails to give enough space for a student to develop his worldview, personality, morality and humanity. Lu (2016a) quotes from Qian Mu, mentioned in Chapter 2 as a well-known advocate of *tongshi* education during the 1940s (and later in Hong Kong), that the modern university is like a store with a collection of specific departments, where students can choose whichever area they want, and to learn what they do not know from the different teachers. But *tongshi* education, inheriting the Confucian tradition, emphasises that students follow the teacher as an exemplar, intellectually and morally, to explore comprehensive inner development (Qian 2005).

3.3.2 Definition 2: *tongshi* education is to promote students' knowledge breadth.

Many scholars regard *tongshi* education as the localised general education into China. Their definition of *tongshi* education, therefore, is mainly based on the idea of 'general education'. Li and Wang (1999; 2001) point out that the contemporary Chinese version of general education, *tongshi* education, could be defined by the following aspects: (i) *tongshi* education is an important element of modern higher education, which should be applied to all university students; (ii) *tongshi* education focuses on students' general understanding of the ways that are distinctive to different academic disciplines, and its curriculum is multidisciplinary and non-specialised; (iii) *tongshi* education contributes to the well-rounded development of a student as a responsible and capable citizen thus it is non-utilitarian.

In this definition, *tongshi* education mainly focuses on a student's knowledge breadth and versatile skills, which are regarded as important for students' employability in the knowledge economy (Kong 2006; Zhong and Wang 2017). *Tongshi* education is to provide balance to, and to supplement, specialised education. Some scholars believe that *tongshi* education could promote students' performance in specialism education, because their mastery of broadened knowledge can provide a sound foundation for specialised learning (Xu and Ji 2004).

The difference between *tongshi* education and general education is also discussed. For example, Chen and her colleagues (2008) point out that, in general education, topics such as critical thinking, cultural diversity and citizenship for a democratic society are important, while in mainland China it is more important for *tongshi* education to conform to the government's discourses on the well-rounded development of a student, in terms of political quality, cultural quality, professional quality, physical and psychological quality.

3.3.3 Definition 3: *tongshi* education is to promote students' understanding of human culture by reading selected classical texts.

For some scholars, through *tongshi* education students should have an intensive reading of a selected collection of classical texts which are of enduring value in human culture, indigenously and globally (Du 2005; Gan 2006). To them, classical texts in the humanities and social sciences constitute the essential contents of *tongshi* education for students from different majors. Academics should work together to select the texts which represent the highest and deepest level of thinking in human history, they would always be valuable resources to empower a student's understanding of contemporary issues (Gan 2010). Particularly, some scholars speak highly of the 'the Great Book' programme in some American universities. It is a curriculum that makes use of the list of texts selected by various institutions and authorities as best expressing the foundations of Western culture. Students rely on these texts as primary learning sources, to make open discussion or write papers with guidance by professors, facilitators, or tutors (Zhang and Feng 2016).

Du (2005) and Gan (2006; 2010) argue that, at its core, university is a cultural institution responsible for transmitting traditions to younger generations and developing cultures and values during the process. They point out that, many Chinese universities, like some of their Western counterparts, have been confronted with the danger of failing to cultivate students' criticality and responsibility towards social problems while progressing in academic research and scientific development. Therefore, through *tongshi* education, students are expected to learn from the greatest thinkers in human history, and are guided to analyse critically the important issues in human culture, as well as to express effectively their own opinions on these issues.

3.3.4 Definition 4: *tongshi* education is to offer a common learning experience for all Chinese college students in the global era.

In her recent studies, Lu (2016a; 2016 b) argues that *tongshi* education is to provide a common learning experience to the younger generation in China,

with the purpose of promoting social integration and inclusion, and empowering individual and social wellbeing (Lu 2016b). She points out that *tongshi* education is Chinese, not Western; it is modern, not traditional. That is, although sharing some similar concerns with other educational practices around the world such as general education in the US, and *kyoyo* education in Japan, *tongshi* education is rooted in the unique Chinese context, with the purpose of revitalise Chinese culture (Li 2006); and although learning from educational traditions in history such as liberal education and Confucianism, *tongshi* education is preparing students for the future, and is designed to solve the various problems caused by modernisation and specialisation in education (Li 2011b; Zhang 2012). Therefore, the curriculum and pedagogy of *tongshi* education should not be copied from practices in history or other countries, but to be explored locally.

Although *tongshi* education is to offer a common experience for all college students in China, Lu (2016b) believes that there should be various models of *tongshi* education for different types of Chinese higher education institutions because of the different local contexts. To construct effective models of *tongshi* education in the campus, systematic reforms should be launched to change not only the curriculum and pedagogy, but also the organisational structure and culture. Unlike the Definitions 1, 2 and 3, Definition 4 implies that the idea of *tongshi* education is not well-developed yet. Instead, the concept needs to be further explored by educational researchers and different groups of stakeholders of higher education, including national and local governments, employers, university and college policymakers, administrators, academic staff members and students.

3.3.5 A comparison of the four definitions

The four definitions share the idea that *tongshi* education is not for the purpose of specialism training, but focuses on the well-rounded development of all students. However, there are some significant differences among the four definitions, showing the different orientations in scholars' understanding of *tongshi* education. I find that the differences could be perceived from two

dimensions, as is shown in Figure 3.2: (i) the extent to which, *tongshi* education is imported and learned from the West, or rooted in Chinese history and context; (ii) the extent to which, *tongshi* education is focused on the wisdom from history (study of traditional and classical texts), or on the discussions of the problems and development of the contemporary society.

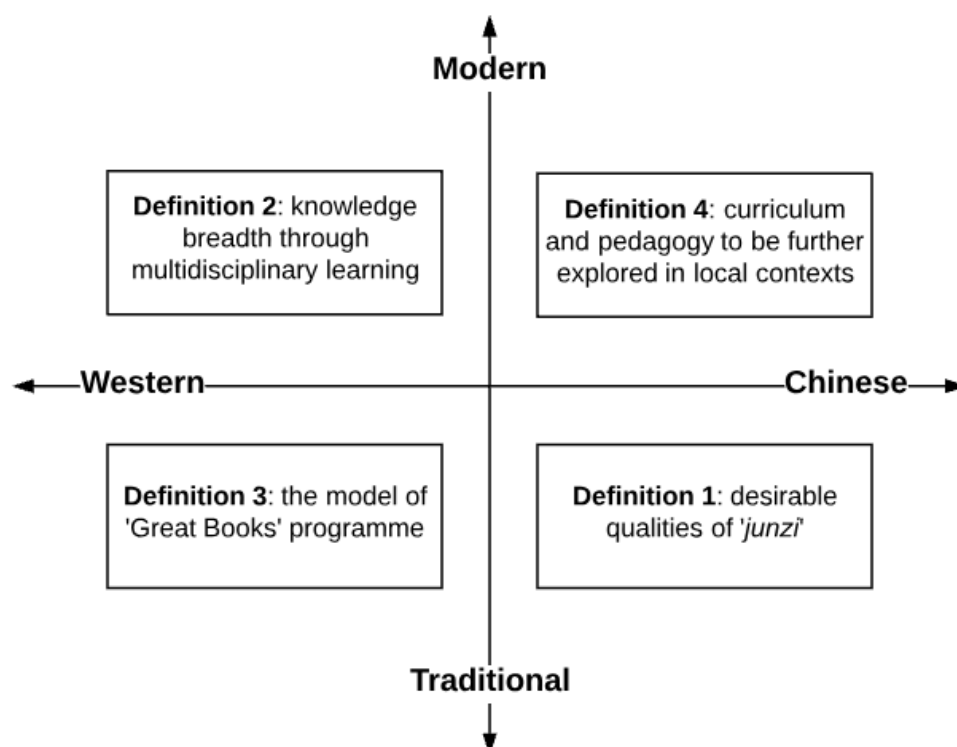


Figure 3. 2 Different orientations of scholars' definitions of *tongshi* education

In Definition 1 and Definition 4, *tongshi* education is regarded as indigenously rooted in Chinese historical and contemporary contexts, although some Western elements could be adopted. Definition 1 draws from the educational tradition in ancient China which emphasises a student's development in morality and personality, especially from the Confucian concept of 'junzi'. Definition 4 emphasises that *tongshi* education involves systematic changes in Chinese universities, with an attempt at exploring a distinctive and effective university education for modern China. By contrast, Definition 2 and Definition 3 describe *tongshi* education mainly as learning and borrowing from the Western general education and liberal education to be transplanted into a Chinese context. In Definition 1 and Definition 3, classical texts in the

humanities, arts and social sciences are important educational resources. It is believed that traditional wisdom is still insightful and valuable in contemporary education and society. In Definition 2 and Definition 4, the major concern of *tongshi* education is to prepare for the future. The contents of *tongshi* education are more about modern knowledge.

In an early study, Xu and Ji (2004) compared the models of *tongshi* education in mainland China, Hong Kong, and Taiwan. They found that in Hong Kong and Taiwan, the richness of *tongshi* education had been better explored, and that the universities implemented *tongshi* education with different orientations: personality education, humanist education, or mind training. However, in mainland China, *tongshi* education was mainly focused on introductory disciplinary knowledge and skills, to serve the pragmatic and instrumental purpose of training versatile workers (driven by Definition 2). More than one decade has passed since their research was conducted. New developments in *tongshi* education have been made in mainland China since then (Lu 2016b; Sun 2013). It is, therefore, necessary to investigate the practice of *tongshi* education in different universities to examine the underlying ideas.

3.4 The *tongshi* education reform: strategies and outcomes

In this section, I will review existing studies on the implementation and implications of *tongshi* education reforms in different Chinese research-intensive universities. The discussions on the approaches, strategies, problems and implications of *tongshi* education will not only help to develop a better understanding of the current status of *tongshi* education, but also reveal some contestable issues which need to be further explored.

3.4.1 Three types of *tongshi* education reform

Some scholars have observed that, in different universities and colleges, *tongshi* education reforms have brought different changes (Chen et al. 2008; Pang 2009; Xu and Ji 2004; Zhong and Wang 2017). I thus concluded three

types of *tongshi* education reforms according to the changes being brought out in the campus.

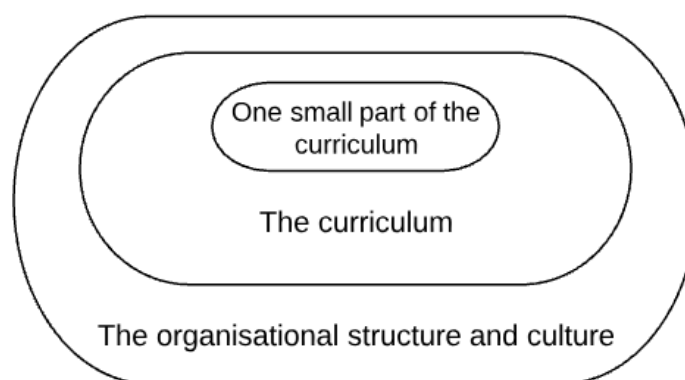


Figure 3. 3 Three types of *tongshi* education reform

First, the smallest oval in Figure 3.3 means that the *tongshi* education reform at some universities changes only a small part of the curriculum by introducing a group of *tongshi* courses into students' timetable. In this case, *tongshi* education is separate from specialism education. The *tongshi* education reform does not result in significant changes to specialism education, which is still the main part of the undergraduate curriculum.

Second, the oval in the middle refers to the *tongshi* education reform which brings major changes to the curriculum. Here the curriculum is defined as a set of purposeful, intended learning experiences, containing at four elements: content, organisation, learning and teaching methods, and assessment (Knight 2001). In this case, the *tongshi* education reform changes all the four parts. Some scholars point out that *tongshi* education of this type could promote students' performance in specialism education because it provides a broad foundation (Cao 2009; Wang 2014).

Third, the largest oval in Figure 3.3 refers to the *tongshi* education reform which changes not only the curriculum, but other respects of organisational structure and culture, such as the way of enrolment, students' residence life, and university administration. The reform brings systematic changes in students' and academic staff members' experience (Fu 2015). Some scholars

argue that, in order to develop an effective *tongshi* education, it is necessary to conduct the third type of reform (Chen et al. 2008; Pang 2009).

As will be discussed in Chapter 4, the three-type framework serves as an important tool for my review of *tongshi* education reforms in Chinese research-intensive universities when selecting a suitable case for my study.

3.4.2 Teaching and learning in *tongshi* education: problems, reasons and suggestions

Existing empirical studies on the outcomes and implications of *tongshi* education reforms, of which there are a relatively small number compared to the discussions on the ideas underpinning *tongshi* education, have suggested that the impact of *tongshi* education in teaching and learning is doubtful and superficial (Lu 2017; Zhang 2012). Some problems in the teaching and learning of *tongshi* education were reported, with discussions on the reasons for these problems and suggestions for improving the situation.

(1) Problems in teaching and learning

The following three aspects have been identified by scholars as the main problems of *tongshi* education in teaching and learning, which are regarded as doing harm to the value of *tongshi* education.

- Academic staff members and students are reluctant to participate in *tongshi* education.

Through student surveys, it was reported that some students felt forced to take *tongshi* courses and so, in many cases, they failed to attend the classes because *tongshi* courses were regarded as irrelevant (Zhang 2014). Some students expressed the opinion that they would prefer to concentrate on specialism learning instead of wasting time on the *tongshi* courses (Zhang 2012). Similarly, it was reported that many teachers were unwilling to teach *tongshi* courses, and considered it an unrewarding task. As a result, the quantity and quality of *tongshi* courses in some universities were inadequate. Although the university administrative departments adopted some measures

to encourage more staff members to teach *tongshi* courses, limited success had been observed (Lu 2017; Pang 2011).

- The content of *tongshi* courses are intellectually unchallenging and the learning outcomes are disappointing.

It has been suggested that the content of many *tongshi* courses is shallow, introductory, and consists of factual knowledge without critical analysis, discussion or connection. The standards of the assessments and tasks are low so that students can always pass the courses without much effort. It was found that some teachers do not prepare for the *tongshi* courses carefully, and old and outdated materials are used, which are regarded as boring and irrelevant (Lu 2017; Zhang 2016). Many students complained that they did not learn much in the *tongshi* courses. The knowledge they gained from the *tongshi* courses could neither contribute to their specialism learning, nor promote their personal development in other aspects such as critical thinking (Du 2005).

(2) Causes of the problems and suggestions

The causes of these problems are attributed by the scholars to academic staff members and particularly the university policymakers.

It was suggested that academy staff members were not well-prepared for *tongshi* education (Chen 2008; Lu 2016b, 2017; Pang 2011). Except for a few who had received their undergraduate education in the West, most staff members had no experience, knowledge or idea of *tongshi* education. The academic staff members were familiar with specialism education, but they lack necessary skills and techniques to teach a *tongshi* course (Jia 2005). Meanwhile, universities failed to provide staff members with guidance or training in teaching *tongshi* courses. Existing interviews with staff members also showed that some staff members' understanding of the purposes and value of *tongshi* education were inadequate; or that although some staff members recognised the importance of *tongshi* education, they still found it difficult to deliver effective *tongshi* courses due to various contextual limitations (Lu 2016b, 2017; Yang 2008; Zhang 2012). It was pointed out that such a

negative attitude from the staff members would inevitably influence students' attitudes towards *tongshi* education (Lu 2017).

More criticism has been directed at the universities and the policymakers. Firstly, *tongshi* education reforms in many universities were top-down, and most academic staff members did not participate in the process of policy-making. Due to their lack of involvement, and furthermore, a lack of institutional guidance or communication, the university administration sector failed to share with staff members the goals of *tongshi* education (Liao 2012).

There was also a lack of a platform for communication among the staff members on their thoughts of *tongshi* education (Xu and Ji, 2013). Secondly, *tongshi* courses have been put in an unfavourable place in the curriculum by the policy makers, which implicitly suggests that *tongshi* education is not as important as specialism education (Lu 2017). For example, many universities arrange *tongshi* courses as evening classes while specialism courses and other basic courses, such as English language, are arranged in the daytime. In addition, *tongshi* courses are usually organised in large sizes of class which makes class interaction between students and teachers difficult (Li 2011b; Sun 2013; Xu and Ji 2004; Zhang 2016). Thirdly, for academic staff members, teaching *tongshi* courses is rewarded less in universities than other academic work such as research and teaching specialism courses. Therefore, many academic staff members are not interested in teaching *tongshi* courses (Liao 2012).

Based on the problems diagnosed, various suggestions have been offered by scholars, such as changing the way of setting *tongshi* courses, encouraging innovative pedagogy (Du 2005; Gan 2006, 2010), promoting students' experiences of *tongshi* education through extra-curricular activities (Zhong and Wang 2017), or building a professional team of teachers to teach *tongshi* courses (Huang 2001). Some of these suggestions have been practised in universities.

3.5 Grasping the complexity of *tongshi* education: the knowledge gap, research rationale and questions

In the above sections of this chapter, I reviewed the existing studies on *tongshi* education, including the meanings of the term '*tongshi*', the ideas and values of *tongshi* education, the strategies and outcomes of the *tongshi* education reform. We can see that *tongshi* education is more than a small adjustment in the university curriculum. It is a systematic and dynamic transformation, starting from the basic question of what and how to teach in Chinese research-intensive universities in the current context, and inevitably involves complex changes in many aspects of university life. Despite the large body of literature, I find that there are two major limitations in the existing research. The first is a lack of in-depth case studies, where the complex process of *tongshi* education reform is investigated within a specific context. The second is a lack of exploration of academic staff members' and students' perceptions and experiences of *tongshi* education. In the following sections, I will discuss how the two issues informed the design of my research.

3.5.1 An in-depth case study of the *tongshi* education reform

The advantage of a case study lies in its ability to provide a comprehensive understanding of organisational complexity by examining actors' behaviour in context (Houghton et al. 2013). Particularly, it addresses and answers questions about why, when and how the reform policy is made, the effects of policies on different groups, and its impact on values, assumptions and ideologies within and outside the campus (Simons et al. 2009). Although many studies reviewed above have used data and materials of *tongshi* education in different Chinese universities, they are not in-depth case studies because they only focus on certain parts of the reform, such as the changes in curriculum content and structure, rather than the contextual processes and implications of the *tongshi* education reform. From the studies I have collected, only several were found which give comprehensive analysis on 'cases' of *tongshi* education. In the following parts I will give a brief introduction to four important

studies to show their research questions, methods and findings, which shed light on my own research design.

- The *tongshi* education reform at Peking University

Chen and her team (2008) conducted a six-year longitudinal study of the *tongshi* education reform at Peking University, from the year 2000 to 2005.²³ They explored the question of how to develop effective practices in *tongshi* education in Chinese universities. Tracking the process of policy-making and implementation of the reform through classroom observations, surveys and interviews, the research explored the experiences of different stakeholders, i.e. policymakers, academic staff members and students. The research is both descriptive and exploratory, giving a full picture of the stakeholders' experiences of the *tongshi* education reform, and detailed information and analysis on the practical issues emerging in the *tongshi* education reform. It reported some problems which were regarded by the researchers as vital to the success of *tongshi* education reform. For example, there was a lack of guidance for students to select suitable *tongshi* courses; students found their learning experience of *tongshi* education is not specialism education; academic staff members found it was challenging to teach students from different disciplinary backgrounds.

- The *tongshi* education reform at Sun Yat-Sen University

Stone (2011) looked at the *tongshi* education reform at Sun Yat-Sen University.²⁴ The study explores how the agenda of *tongshi* education was initiated and the strategies were worked out and implemented, with a particular interest in the influences of the Western liberal arts education and general education. The findings confirmed that liberal education and general education were important models for the reform of Chinese undergraduate education; meanwhile the reform also sought broadly to reintegrate traditional Chinese educational content into undergraduate study. Some differences between *tongshi* education and Western liberal education were also identified. For

²³ A basic description of *tongshi* education at Peking University has been given in Chapter one.

²⁴ A basic description of *tongshi* education at Sun Yat-Sen University has been given in Chapter one.

example, liberal education emphasises students' autonomy and freedom in learning, where students are expected to take responsibility for their learning and make the decisions (and mistakes) that will lead to a fuller understanding of themselves and the world around them. In *tongshi* education, the emphasis is on the cultivation of students through highly articulated programmes of study. These programmes involve more courses and less independent study.

- The *tongshi* education reform at Renmin University

Zhang (2012) investigated the *tongshi* education at Renmin University (People's University).²⁵ Her research focuses on if and how *tongshi* education changed the organisational culture, particularly staff members' and students' ideas of the purpose of university education. Through document analysis, interviews with teachers, and survey with student, the study showed that, while the idea of *tongshi* education – broadened knowledge, the development of well-rounded persons, and interdisciplinary study – was appealing to students and academic staff members, the *tongshi* education reform had not brought about significant transformation in the learning experiences of the students or the organisational culture.

- A comparative study

Liao (2012) studied two cases of *tongshi* education reform, one at Peking University and the other at East China Normal University in Shanghai. She explored the reasons behind *tongshi* education reforms in Chinese universities from a global and local perspective, and examined the process of policymaking and academic staff members' participation. She concluded that *tongshi* education reforms in Chinese universities were driven by the universities' need to broaden the undergraduate curriculum and the goal of becoming world-class universities. She also found that, because of the lack of involvement in policymaking, academic staff members lacked a shared view with the

²⁵ Renmin University was founded in 1950 in Beijing with a very strong communist ideology. In the past it focused on the training of the political cadres for the Chinese Communist Party. Now it has strong programmes in the humanities and social sciences.

university administration sector as to what *tongshi* education was trying to accomplish.

These four studies offer different stories of *tongshi* education in Chinese research-intensive universities. However, all the four studies are all based on cases in universities whose academic strength is the humanities and social sciences, and three of the cases are based on universities in the same city, Beijing. The values of in-depth case studies lie not only in the detailed information of the cases themselves, but also the insights which they offer to contribute to our understanding of the emerging models of *tongshi* education in different settings.

Therefore, I argue that there should be more case studies on *tongshi* education, given that China has more than 2,500 universities and colleges and the *tongshi* education has become increasingly popular. I decided to conduct an in-depth case study of *tongshi* education in a university of different type, in terms of history, location, and organisational culture (the process of selecting the case will be discussed in the Chapter 4). I hope such a study would contribute to a more diverse collection of cases and a more comprehensive understanding of *tongshi* education.

It should be clarified here that at the early stage of research design, I also considered the possibility of a comparative study of *tongshi* education from a few different universities. However, a comparative study needs to be based on abundant information and knowledge about the important cases of *tongshi* education so that comparison, connection and generalisation can be made to promote theoretical discussion, instead of choosing convenient cases without convincing reasons. Such knowledge is still lacking. Therefore I was more compelled to collect richer data from one single case to facilitate comparative studies in future.

3.5.2 Exploring the perceptions and experiences of academic staff members and students

An in-depth case study entails the stories of different actors to elicit different perspectives. In the existing studies, the voice of policymakers has been more discussed to reveal the reasons and purposes of *tongshi* education, while the stories of academic staff members and students have not been adequately explored. In a very limited number of studies, surveys and interviews have been conducted with students and staff members to discuss the ‘gap between the intentions of policymakers and their implementation’ in teaching and learning (Morris and Scott 2003). Some studies offer the conclusion that academic staff members and students only developed inadequate understanding of *tongshi* education and held reluctant attitude towards participation in *tongshi* education (Li et al. 2001; Pang 2009; Zhang 2012).

However, I contend that these conclusions need to be critically questioned. In existing studies, the investigation of the actors’ perceptions and experiences usually follows a top-down approach. That is, the researcher gave a definition of what *tongshi* education ‘should be’ in advance, which was then used as the benchmark to test students’ and staff members’ participation. For example, Pang (2009) conducted a survey to investigate academic staff members’ and students’ understandings of the idea of *tongshi* education. In the online questionnaire, she provided nine phrases, describing the aims of *tongshi* education, based on a literature search and her own definition of *tongshi* education.²⁶ The participants were asked to choose up to three options to express their understanding of *tongshi* education. Likewise, when investigating the teaching and learning practice of *tongshi* education, teachers and students

²⁶ The nine options are: ① to cultivate well-rounded development of a student’s personality through a broadened and comprehensive knowledge ② to integrate the humanities and science and to broaden students’ horizons ③ to promote moral development and moral reasoning of students ④ to provide foundation and supplement to specialist education ⑤ to impart common sense and practical skills ⑥ to promote education in the humanities and culture ⑦ to help students have a basic understanding of the major disciplinary areas ⑧ *tongshi* education is the set of *tongshi* education curriculum ⑨ I have no idea.

were always asked to report problems and difficulties against the ideal situation described by researchers.

I think such an approach — with its value of identifying problems in the practice of *tongshi* education — has its limits in the ability to present the spontaneous and authentic voice of staff members and students. By ‘spontaneous and authentic’, I mean that academic staff members and students should be encouraged to use their own language to talk in detail about their understandings and experiences of *tongshi* education, so that how they make sense of their experiences can be interpreted.

Although *tongshi* education is a top-down reform, the practice of teaching and learning could go far beyond the plan made by the policymakers, especially because universities are complicated organisations (Cummings et al. 2005; Curri 2002; Harman 1989). The *tongshi* education reform was initiated when the old narrowly-specialised and vocationally-oriented Soviet model of higher education was collapsing in Chinese universities (Chen 2010b), which created vacuum for new ideas and ideologies for the undergraduate curriculum. Various influences — global and local, traditional and modern — have been competing and integrating in this field, which contributes to the richness, flexibility and complexity of *tongshi* education. The definitions, rationales and models of *tongshi* education are far from being clear. Under such circumstances, the way how teachers and students perceive the meaning of *tongshi* education, and the way how they teach and learn in the classroom, are important factors in deciding the nature of *tongshi* education.

Therefore, in my research, ‘*tongshi* education’ is not presumed to be an already well-developed idea (as has been concluded in Section 3.3.1), but instead, an emerging educational model which needs to be defined. This assumption suggests a bottom-up approach to research. That is, the idea of ‘*tongshi* education’ will be explored not only as a policy agenda but, more importantly, from the accounts provided by teachers and students based on their experiences and understandings. Although scholars have offered some definitions and models of *tongshi* education drawn from either Chinese

traditions or Western ideas, it is still of vital importance to explore the nature of *tongshi* education from ongoing practice, where new elements might be identified.

3.5.3 Research questions

This study explores *tongshi* education through a case study in a Chinese research-intensive university. It explores the reasons for, processes of, implications of, and actors' participation in, *tongshi* education within the specific context.

In particular, it aims to contribute to our understanding of *tongshi* education in two respects. First, this study tries to weave both the spatial and temporal threads of the story. The spatial thread refers to the synthesis of global, national and local influences on the agenda of *tongshi* education. The temporal thread refers to the historical roots underlying the current *tongshi* education reform. Therefore, the agenda of *tongshi* education will be examined: (i) in the global context where similar curriculum transformations in other parts of the world are also observed, to contribute to the discussions of global connectedness in university education (Vidovich et al. 2012); and (ii) in the long history of Chinese higher education which is many-layered by different cultures and ideologies, i.e., Chinese traditional culture, Western epistemology and the idea of academic freedom, and the Soviet heritage of socialist ideology and centralised administration, as well as globalisation and the free market.

Second, I want to contrast the stories of different stakeholders, in order to reveal different aspects of *tongshi* education. For example, policymakers might tell the story of how *tongshi* education changes the undergraduate curriculum, reshapes university organisation, and contributes to the university's institutional development as a global enterprise. For academic staff members, their stories might focus on how *tongshi* education impacts their academic work, and particularly their understanding of teaching, from their particular disciplinary backgrounds. Students tell their experiences of *tongshi* education, which will be influenced by their expectations of university education.

Interweaving the different accounts, we can then develop a comprehensive understanding of *tongshi* education in the case study.

The research questions are formulated as follows. Given the exploratory nature of this research, they are deliberately written at a comparatively broad level, to serve primarily as guidance for the inquiry process. In Chapter 4, I will continue to discuss how these overarching questions are explored in specific methods.

- (1) What are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?
- (2) How do academic staff members understand the meaning of *tongshi* education and practise it in teaching?
- (3) What are students' understandings and experiences of *tongshi* education?
- (4) What is the distinctiveness of *tongshi* education when being reviewed in the global context where liberal education has been introduced into the undergraduate curriculum at universities in different parts of the world?

3.6 Summary

This chapter presents a review of Chinese and English literature on *tongshi* education to inform the theoretical stance of this research. Existing studies have mainly been focused on two questions. First, what is the meaning and idea of *tongshi* education? Second, what are the changes that *tongshi* education reforms have brought into Chinese universities? The findings of existing studies show that (i) there are competing conceptions of 'tongshi education' by scholars, thus its meaning is far from clear; (ii) *tongshi* education reforms have been changing the curriculum, administration and organisational culture in many Chinese universities, through different strategies.

Being aware of the complexity of *tongshi* education, I find there are two major limitations within existing studies. First, there is a lack of in-depth case studies which explore the organisational complexity of the *tongshi* education reform. Second, there is a lack of an exploration of the understandings and experiences of academic staff members and students as active agents of *tongshi* education. Therefore, I raised four research questions for my own case

study which will focus on the global, national, local, and historical backgrounds of the *tongshi* education reform in the case study, and will contrast and synthesise the stories of different stakeholders of the *tongshi* education reform to construct a comprehensive picture in one particular context.

Chapter 4 Methodology and methods

4.1 Introduction

In Chapter 3 I have discussed the reasons for a single-case study on the *tongshi* education reform, the two specific considerations underpinning the research design, and the four research questions. In this chapter I will elaborate the framework and details of the research design, the process of data collection and analysis, the trustworthiness of this qualitative case study, and research ethics. In Section 4.2, the general framework of research design will be discussed, which presents the constructivist stance of the researcher, and how I broke down the four overarching research questions. In Section 4.3, I will explain the procedure of how to select a high-quality case. Section 4.4 will review the process of data collection and my fieldwork experience. In Section 4.5, the methods of data analysis, i.e., thematic analysis and phenomenography, will be discussed. In 4.6, a reflection will be made on the trustworthiness of this qualitative case study, and my stance as a researcher in the cross-cultural setting. I will also explain the ethical issues in this research, such as anonymity and confidentiality.

4.2 The framework for research

Figure 4.1, adapted from Creswell's (2013) framework for research design, shows the interconnection of the constructivist worldview, the design of a qualitative case study, the specific methods of data collection and analysis, and the formation and validation of arguments.

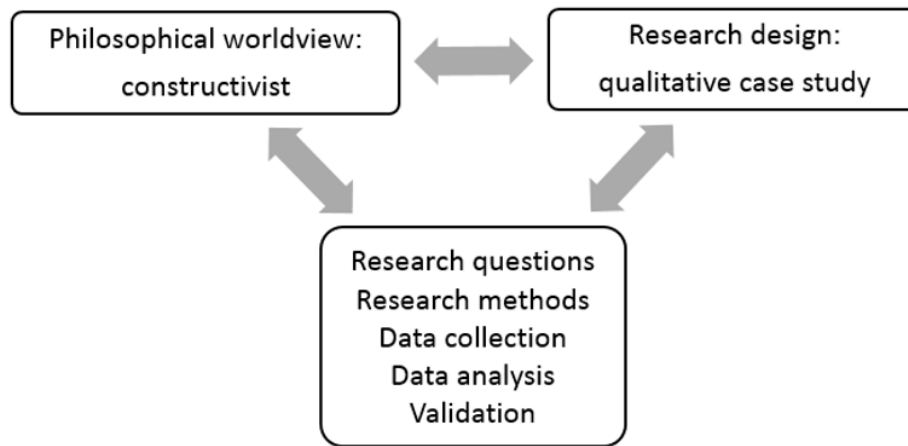


Figure 4. 1 Framework for research: the interconnection of worldviews, design and research methods

The research design for this qualitative case study is underpinned by a constructivist stance, with a particular interest in the perceptions and experiences of different groups of actors in the real-life context. According to constructivist assumptions, actors construct meanings as they engage with the world, based on their historical and social perspectives within a certain context, and the meanings they construct will have important influences on their actions (Crotty 1998). In this study, to explore the contextual process and implication of the *tongshi* education reform at the selected university, I collected the perceptions from different groups of actors, i.e., policymakers, academic staff members, other supporting staff (political tutors and student tutors²⁷), and undergraduate students, through open-ended semi-structured interviews.

Figure 4.2 in the following page shows how I broke down the four overarching research questions raised in Chapter 3, into a set of second-level questions, which serve as the bridge between the overarching questions and accessible data through different research methods.

²⁷ More details of these two types of tutors will be discussed later in Section 4.3.2.

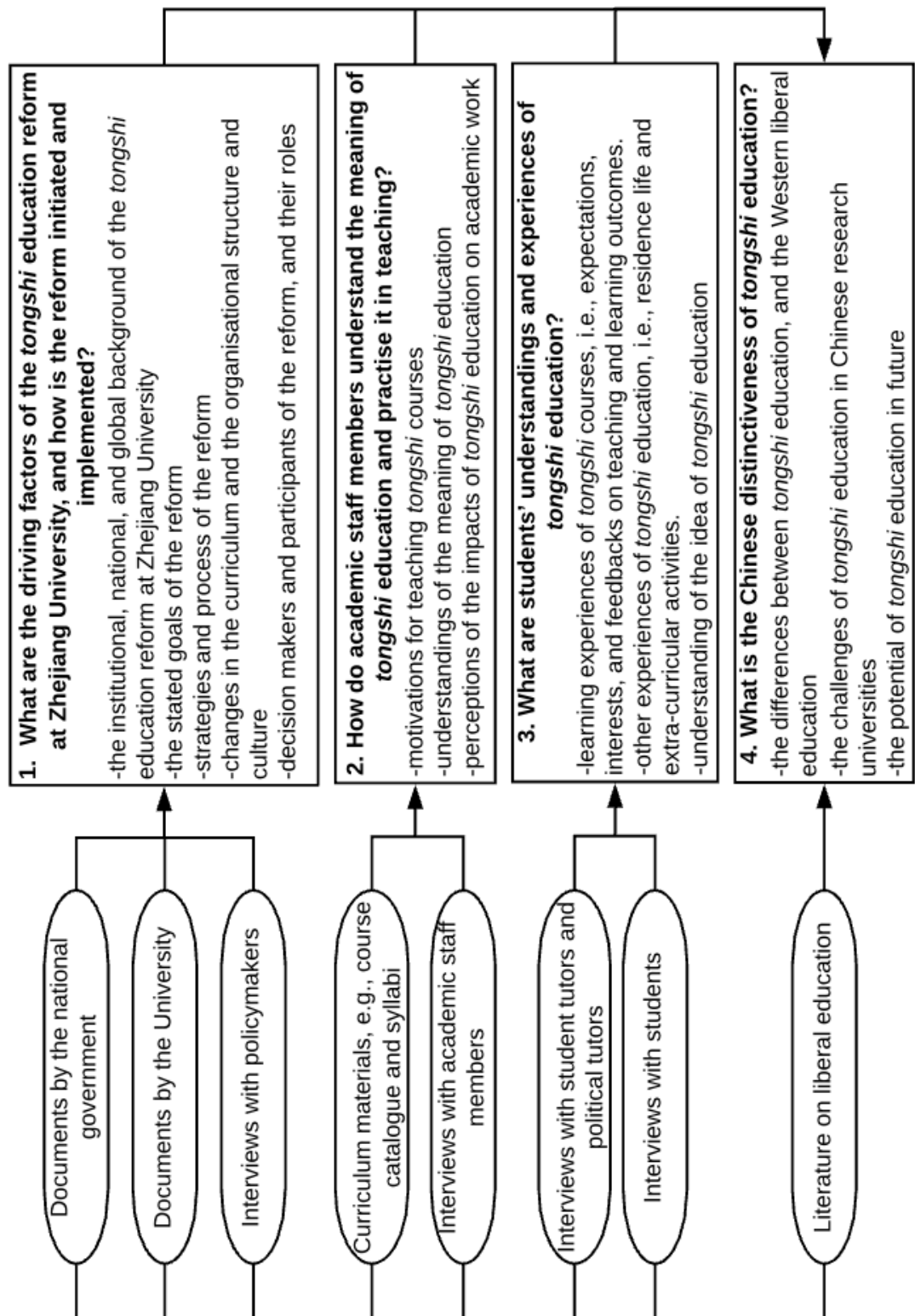


Figure 4. 2 Research questions, methods, and data sources

- **1. What are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?**

To answer Question 1, I examined the policy documents and conducted semi-structured interviews with the policymakers, to see how the reasons and purposes for the *tongshi* education reform at the case university were articulated. The description of the institutional, local, national and global background of *tongshi* education was also analysed. I examined the policy documents to review the main strategies and processes of *tongshi* education designed by the policymakers, and to identify the important participants in implementation. Through semi-structured interviews with the policymakers, I asked about the main considerations underlying their design of *tongshi* education. I then compared the curricula before and after the *tongshi* education reform to analyse the changes. The way how *tongshi* courses were categorised was also discussed. Other changes in university organisation and culture were also examined, based on documentation and interviews.

- **2. How do academic staff members understand the meaning of *tongshi* education and practise it in teaching?**

I first examined the make-up of the group of teachers for *tongshi* courses, in terms of academic rank, disciplinary background and gender, to illustrate who is more likely, and who is less likely, to teach *tongshi* courses. In semi-structured interviews with the academic staff members, I asked about their motivations for participation in *tongshi* education, the impacts of the reform on their academic work, and their understandings of *tongshi* education. The challenges they encountered in teaching *tongshi* courses were also discussed.

- **3. What are students' understandings and experiences of *tongshi* education?**

In semi-structured interviews, the student interviewees were encouraged to describe their learning experience of *tongshi* courses, including their expectations and interests, the amount of importance, time and effort they give to *tongshi* courses, and their feedback on teaching and learning outcomes. Other important issues regarding their experience of *tongshi* education, particularly residence life in campus and extra-curricular activities were also

discussed. Their understandings of the idea of *tongshi* education were analysed and compared with those of academic staff members. I also suggest possible adjustments for the practice of teaching and learning of *tongshi* education according to students' feedback. Information from interviews with student tutors and political tutors was also used as supporting evidence.

- **4. What is the distinctiveness of *tongshi* education when being reviewed in the global context where liberal education has been introduced into the undergraduate curriculum at universities in different parts of the world?**

To answer the fourth research question, I not only drew on the arguments and conclusions made from the first three research questions about the rationale and feature of *tongshi* education, but also reviewed existing literature on the tradition and development of liberal education in different parts of the world. I compared the idea and practice of *tongshi* education with those of liberal education which have been observed by some scholars in some Asian and Western universities, to discuss what the particular challenges and opportunities of *tongshi* education in Chinese research-intensive universities.

4.3 How the site of the case study was selected

A major concern of this research was how to choose a suitable case, i.e., a single case that can be fruitful in the understanding of the rich meaning of *tongshi* education and the rationale and implications of the *tongshi* education reform. The selected case was expected not only to give details about one specific reform, but also to offer insights into the meaning of *tongshi* education in Chinese research-intensive universities in general. In this section I will explain why and how the *tongshi* education at Zhejiang University was selected as the case.

Some scholars argue that the real business of case studies is particularisation rather than generalisation, so that the specific details of the case could be elaborated (Flyvbjerg 2006; Stake 1995). In particular, it would be more fruitful to select the cases with important historical and strategic roles in the process of policy development, to maximise what can be learnt, instead of searching for a supposed typicality (Walford 2001).

Because of my own experience of *tongshi* education as an undergraduate student, my home university, Zhejiang University, came to me as the first option when I started to consider selecting the case. Not only had I been paying attention to the *tongshi* education reform at Zhejiang University since my undergraduate stage, but also the circumstances of being an alumnus of Zhejiang made it more readily possible for me to gain attention and achieve access. However, I recognised the risk: that sometimes researchers settle for research sites to which they can easily gain convenient and ready access rather than thinking through the implications of particular choices (Walford 2001). Therefore, I decided to conduct a search of possible cases and make a final decision based on a comprehensive comparison.

Given that my research is aimed at exploring the potential richness in the meanings and implications of *tongshi* education through investigating stakeholders' experiences, I was looking for a case where *tongshi* education reform started relatively early and more changes had taken place than in some institutions. Such a case needed to be selected from the group of elite research-intensive universities in China, especially from the thirty-nine so-called '98/5 universities', which are regarded as the top universities in China and are supported by the central government to develop themselves into world-class universities in both research and education.²⁸ *Tongshi* education was first introduced in these universities, and it is at these universities that new and various models have been continually emerging.

I used two main indicators to examine the potential value of a case for intensive investigation.

- The time at which *tongshi* education was introduced. I preferred to select a case where *tongshi* education was introduced relatively early so that its implications could be fully explored.
- The type of *tongshi* education reform. As was discussed in Section 3.4.1, there are three types of reform according to the changes that the *tongshi* education reforms brought out at universities. **Type 1:** a group of *tongshi* courses are introduced into students' timetable without making a substantial difference to specialism education, which is still

²⁸ For more details about '98/5 universities' please see Chapter 2, Section 2.5.2.

the main part of the curriculum. **Type 2:** *tongshi* education changes the undergraduate curriculum, including specialism education, in terms of the purpose, content, and pedagogy. **Type 3:** changes are observed not only in the curriculum, but also in the administrative structure and organisational culture at the university. Cases of Type 3 were preferred because they indicate more systematic and fundamental changes.

The search and evaluation were made based on the existing studies, reports and the available information on the universities' official websites. I tried to collect comprehensive and neutral information covering the above two indicators. During the process, I also paid attention to *tongshi* education reforms in other types of universities in case there were distinctive cases. The more valuable cases were found to be from the 98/5 universities. Table 4.1 shows the result for the evaluation of *tongshi* education in the thirty-nine 98/5 universities.

Table 4. 1 *Tongshi* education reforms at Chinese research-intensive universities

University (in alphabetical order)	Start time	The type of reform
Beihang University	2012	2
Beijing Institute of Technology	2005	1
Beijing Normal University	2002	1
Central South University	/ ²⁹	1
China Agricultural University	2013	1
Chongqing University	2012	3
Dalian University of Technology	/	1
East China Normal University	2006	1
Fudan University	2002	3
Harbin Institute of Technology	/	
Huazhong University of Science and Technology	2000	1
Hunan University	2006	2
Jilin University		1
Lanzhou University	2009	1
Minzu University of China		1
Nanjing University	2002	3
Nankai University	/	1
National University of Defence Technology		
Northeast University	/	3
Northwest Agriculture & Forestry University	/	
Northwest Polytechnic University	/	
Ocean University of China	2015	1
Peking University	2000	3
Renmin University of China	2008	1
Shandong University	2008	1
Shanghai Jiao Tong University	2009	2
Sichuan University	2008	1
South China University of Technology	2012	1
Southeast University	2012	1
Sun Yat-Sen University	2008	3
Tianjin University	/	1
Tongji University	/	1
Tsinghua University	2006	3
University of Electronic Science and Technology	/	
University of Science and Technology of China	/	
Wuhan University	2003	2
Xiamen University	2012	1
Xi'an Jiao Tong University	/	1
Zhejiang University	2006	3

²⁹ '/' means information cannot be found.

As we can see from Table 4.1, *tongshi* education in the following eight universities proved to be the most promising for intensive examination: Peking University, Chongqing University, Fudan University, Nanjing University, Shanghai Jiao Tong University, Sun Yat-Sen University, Tsinghua University, and Zhejiang University. The map in Figure 4.3 shows the locations of these eight universities so that the reader could gain a clearer impression. In addition, I also marked the locations of the universities of which the *tongshi* education reform have been discussed in existing studies (Lin 2010), i.e., Beijing Institute of Technology, Wuhan University, and Huazhong University of Science and Technology.



Figure 4. 3 The locations of some important cases of *tongshi* education in mainland China³⁰

While all of them are major comprehensive universities which offer education and research in all the major knowledge domains, these eight universities can be divided into two groups according to their disciplinary strengths. The first group – Peking University, Fudan University, Nanjing University and Sun Yat-Sen University – has strengths in the humanities and socially sciences. The second group – Tsinghua University, Chongqing University, Shanghai Jiao

³⁰ Free Copyright from *China with Provinces - Multicolor* on the Website FreeVectorMaps.com. Retrieved on 12th, November 2017

Tong University and Zhejiang University – is stronger in the areas of natural science and engineering studies.

As has been mentioned in Chapter 3, there have been a few in-depth case studies on *tongshi* education at Peking University and Sun Yat-Sen University (e.g., Chen et al. 2008; Stone 2011; Wang 2013), and the practice of *tongshi* education at Fudan University has also been carefully examined (Lu, 2016a, 2016b, 2017). These three universities are all from the first group. The review of the existing studies also shows that, in general, more has been heard about *tongshi* education from the universities with strengths in the humanities and social sciences, while less has been heard about those with strong natural science and engineering studies. Given that the differences in disciplinary structure might result in different choices on strategies in *tongshi* education, I decided to select a university from the second group: Tsinghua University, Chongqing University, Shanghai Jiao Tong University and Zhejiang University.

Following the above process, I determined that there was no reason to reject Zhejiang as an appropriate site. The particular ethical issues of conducting a case study at my home university will be discussed in Section 4.5 of this chapter.

4.4 Data collection and fieldwork

Data were collected mainly through documentation and interviews. Data collection started with an examination of the relevant national and institutional policy documents and curriculum materials on the websites, which took place immediately on the identification of Zhejiang University as the case and continued during the fieldwork. After the decision was made that Zhejiang University would be a good site for case study, I sent an email to request permission for fieldwork from the Undergraduate Administrative Department (UAD) of Zhejiang University, which, as will be further introduced in Chapter 5, manages all the issues relating to undergraduate education. The email was written in Chinese and its English translation is offered in Appendix 4-A. In the meantime, I made personal contact with a colleague who were working in the UAD, with the knowledge that I might need to wait a long time for an official to

my email (or perhaps no reply at all). Through this personal link, I was informed my request to carry out a case study at Zhejiang University was permitted by the dean of UAD, who also accepted my invitation for interview. The UAD then provided me a copy of introduction letter to help me access the University archive for historical documents. Fieldwork was carried out over two months, from 3rd December 2014 to 31st January 2015, which included conducting semi-structured interviews, and collecting institutional documents which were not available online.

4.4.1 Documents by the national government and Zhejiang University

Examination and collection of the relevant national and institutional policy documents and curriculum materials took place as soon as the research project was started. I was intended to gather as much information as possible remotely before my fieldwork, so that I would have a clear idea by the time of the visit what information remained to be collected, and which my presence on-site would facilitate. I firstly checked the official website of the Undergraduate Administrative Department (UAD) of Zhejiang University, where most of the institutional documents about undergraduate curriculum policy were published chronologically. Because the UAD was established in 2008, only documents which were made afterwards could be found on this website.

During 2008-2011, there was a particular page about '*tongshi* education' on this website.³¹ This page mainly contains contents of the following categories: (i) administrative arrangements for *tongshi* education such as notices for evaluation of *tongshi* courses; (ii) calls for more academic staff members to develop *tongshi* courses and to conduct studies on teaching and learning of *tongshi* education; (iii) information on seminars on *tongshi* education; and (iv) reports on good practice of teaching and learning. However, this page stopped being active after 2011, probably because the work related to *tongshi*

³¹ The specific web page on *tongshi* education at Zhejiang University: http://ugrs.zju.edu.cn/redirect.php?catalog_id=34. Retrieved on 2nd October 2017.

education was henceforth undertaken as a regular part of the administrative work, rather than a special project as it used to be at the early stage of the reform. Since then the content relevant to *tongshi* education has been appearing as an integral part of the undergraduate curriculum on the main website.

What the website lacks are the documents before 2008, when the online administration system had not been employed. Therefore, I applied for, and was granted, access to the University archive to check the documents regarding the university curriculum and *tongshi* education from the late 1980s to 2008 from the university archive, when I was doing fieldwork at Zhejiang University. Hard copies of these documents were made.

Tongshi education was mentioned as a recurring and enduring theme in many institutional documents since 2002, although the number of documents exclusively devoted to *tongshi* education was relatively small. Apart from the policy documents, I also collected the available yearbooks of Zhejiang University (from 2004 to 2017), and the undergraduate prospectuses (from 1998 to 2017), which contain descriptions of educational programmes the University offered. The yearbooks summarise the important policies and reforms taking place in each year, and the prospectuses offer a relatively complete picture of the composition of the curriculum, which is helpful in tracing the curricular changes. Table 4.2 lists the key documents collected.

Table 4. 2 A selected list of institutional documents on *tongshi* education at Zhejiang University

Institutional documents	Quantity	Time	Source
Manual for undergraduate students of Zhejiang University	1	1998	Archive
Principles and guidelines for the undergraduate curriculum of Zhejiang University: 2002	1	2002	Archive
Principles and guidelines for the undergraduate curriculum of Zhejiang University: 2006	1	2006	Archive
Principles and guidelines for the undergraduate curriculum of Zhejiang University: 2008	1	2008	Archive
Report of evaluation on <i>tongshi</i> education at Zhejiang University	1	2011	Archive
Manual for undergraduate students	1	2013	Archive
The notice of adjustment of undergraduate curriculum in 2014	1	2013	Online
Zhejiang University yearbooks	14	2004-2017	Online ³²
Zhejiang University undergraduate prospectus	14	2004-2017	Online ³³

I also searched for relevant policy documents from the website of the Ministry of Education (MoE) of China³⁴, which set guidelines for national, regional and institutional policies. It should be noted that apart from the formal documents, some senior government leaders' speeches are also important policy references, which the website recorded and prioritised. As has been discussed at the beginning of this thesis, *tongshi* education is not a national or government-driven reform. Therefore, there are no specific documents on it although the term '*tongshi* education' started to be mentioned in some of the recent documents. The relevant documents are listed in Table 4.3. Efforts were also made to search documents from the University Tongshi Education

³² Website <http://www.zju.edu.cn/583/list.htm>. Accessed on 18th March 2018.

³³ Website http://bksy.zju.edu.cn/chinese/redir.php?catalog_id=818423. Accessed on 18th March 2018.

³⁴ Website <http://www.moe.edu.cn/>. A specific page for higher education: <http://www.moe.edu.cn/s78/A08/>. Accessed most recently on 8th January 2018.

Association. However, very limited information has been found apart from some brief reports of their annual conferences.

Table 4. 3 The relevant governmental policy documents on higher education

National Documents	Time
Guidelines on education for cultural quality (MoE)	1998
Action plan for vitalising education for the twenty-first century (MoE)	1998
Jiang Zemin's speech on the one-hundredth anniversary of Peking University	1998
The decision of promoting education for cultural quality (the State Council of China)	1999
The tenth national five-year plan on education (the State Council of China)	2002
The eleventh national five-year plan on education (the State Council of China)	2007
Plans of educational developments for a medium and long term: 2010-2020 (the State Council of China)	2010
The twelfth national five-year plan on education (the State Council of China)	2012
Guidelines and principles for promoting the quality of higher education (MoE)	2012
The thirteenth national five-year plan on education (the State Council of China)	2017

It should be clarified that, for the national documents, the focus of investigation was placed on the document contents rather than the process of how the documents came into being, which would go beyond my research agenda. For the institutional documents, both the content and process of initiation and implementation were examined. To review the reform process, I found it was necessary to view the institutional policy documents from the following aspects: how the contents came into being; how documents are used as resources by human actors; and how documents function in, and impact on, schemes of social interaction and social organisation (Prior, 2011). In general, these documents provide a helpful source with sufficient details to trace the history of educational changes, and offer triangulation for the interview transcripts.

4.4.2 Interviews: sampling and access

Interviewees were invited and selected from four groups: (i) senior university administrators who were the main policymakers of the *tongshi* education reform; (ii) academic staff members who were teaching or had taught *tongshi* courses; (iii) political tutors and student tutors who supported students in *tongshi* education (more details of these two groups in following parts); and (iv) undergraduate students. Altogether forty participants were interviewed. The interviews varied in duration from 30 to 90 minutes, with most lasting 40 minutes. The interviews were semi-structured and the main questions were listed in advance to ensure that the conversation cover the topics I wanted to explore. A copy of consent letter and a list of the main interview questions were sent by email to every interviewee before the interviews (the English translation of the consent letter could be found in Appendix 4-B).

In the interviews, I introduced myself as a former student who would like to share with the interviewees my experiences and understanding of *tongshi* education and to learn more from them. In the following parts I will introduce more details of how each group of interviewees were sampled and accessed. In Appendix 4-C, I gave details of the interviews, including date, duration, relevant information of the interviewee, and the interview questions for each of the four groups.

- Administrative leaders of Zhejiang University

Three administrative leaders were purposely selected and accessed, who were the main policymakers of *tongshi* education at Zhejiang University. Two of them worked in the Undergraduate Administrative Department (UAD) of Zhejiang University. The UAD, as will be further introduced in Chapter 5 (Section 5.3.4), leads the *tongshi* education reform (the UAD was called the Academic Affair Office before 2008), and manages the undergraduate curriculum at the level of university. The third interviewee used to work in the Academic Affair Office, when *tongshi* education was initiated at Zhejiang University. At the time when I conducted the fieldwork, he was promoted to be a member of the University Committee of Chinese Communist Party

(UCoCCP), which, as will also be introduced in Chapter 5 (Section 5.4), is the leading department at Zhejiang University. Interview questions were mainly about their definition of *tongshi* education, the rationale of *tongshi* education and difficulties encountered in implementation.

- Academic staff members

Not all academic staff members at Zhejiang University participate in *tongshi* education. I planned to interview those who had taught or were teaching *tongshi* courses. I was aware that such a sample would possibly lead to the risk that academic staff members who were sceptical or cynical, and who yet had to make a contribution to *tongshi* education, would be less represented in the participant group. However, given that the interviews were aimed at the detailed accounts of staff members' understanding of *tongshi* education and their main concerns when they design and teach a *tongshi* course, I believed that the teachers who had made greater contributions to *tongshi* education should be prioritised. It was also because of the practical concern that these staff members might be more willing to accept an interview on *tongshi* education.

Therefore, the sampling of academic staff members started from developing a list of teachers who had taught or were teaching *tongshi* courses. Because the UAD was not able to provide me such a full list, I had to collect information from two sources. First, the list of teachers who were teaching *tongshi* courses during my fieldwork, the autumn-winter semester of 2014-2015 (September 2014 - January 2015) could be attained from the UAD website (<http://jwbinfosys.zju.edu.cn/default2.aspx>), which contained information on their name, the *tongshi* course they were teaching, and the disciplinary department they belonged to. More information of individual teachers could be found on the University's personnel management system (<http://person.zju.edu.cn/index/>), about the teacher's educational and working experience, as well as contact information. The second source was the intranet discussion website led by students where they share information about

curriculum and teachers.³⁵ There was a specific section on *tongshi* courses where some *tongshi* courses and teachers were highly recommended while some were criticised.

Based on these two information resources, I managed to develop a list containing about 400 academic staff members. I then divided the full list into thirteen groups, as is shown in Table 4.4, according to the types of *tongshi* courses at Zhejiang University³⁶. I planned to recruit at least one or two respondents for each of the thirteen groups. Such a sampling would also ensure that the participating teachers come from different disciplinary backgrounds.

Table 4. 4 Dividing academic staff members into thirteen groups for sampling

<i>Tongshi</i> elective courses	<i>Tongshi</i> lower-division courses	<i>Tongshi</i> compulsory courses
i. history and culture (3) ³⁷	vii. the humanities and social sciences (2)	xi. political and ideological education (2)
ii. literature and arts (1)	viii. mathematical and natural sciences (4)	xii. foreign languages and ICT education (1)
iii. economy and society (1)	ix. informatics and engineering studies (1)	xiii. physical and military education (1)
iv. communication skills and leadership (1)	x. medical studies (0)	
v. sciences and research (2)		
vi. technology and design (1)		

I sent an invitation email to all the academic staff members on the full list, being aware that many of them might not respond. After a few days, I received six positive responses which accepted my invitation for interview. I talked to a professor in the higher education research centre of Zhejiang University, who

³⁵ The intranet platform (<https://www.cc98.org/>) was started by some students in 2004 and has since been popular among students. It is managed by students in the form of a student association. The platform has various themes related to campus life, one among which is information on *tongshi* courses and the teachers.

³⁶ As will be explained in Chapter 5 (Section 5.3.3), *tongshi* courses at Zhejiang University are divided into three sub-categories with thirteen small groups in total, which have different functions.

³⁷ The Arabic numbers in blanket refer to the actual number of interviewees I managed to recruit for each groups.

was my supervisor when I was an undergraduate student at Zhejiang University. He advised that the low response rate was not surprising according to his own research experience. He suggested that I should ask help from the UAD because its staff maintain frequent communication with academic departments and individual teachers. My colleague in the UAD kindly offered to help by sharing my invitation. Another ten respondents were confirmed in this way.

After these two procedures, I had sixteen staff interviewees. There were still a few groups lacking participants therefore I decided to go to some classes and ask directly, with my best effort to give them information on my research and why I wished to invite them to participate. Two teachers agreed to be interviewed but asked to do it right before or after the class. As a result, some interviews are quite short because of the time limitation, although this does not imply that these interviews were less valuable. Nonetheless, the fact that I had not informed them of my research in advance could be a limitation of the research method.

After I returned to Edinburgh, I also managed to carry out email interviews with three academic staff members, who, for different reasons, did not respond to my early invitations, but then expressed interest to participate. We agreed to use email interviews.³⁸

To sum up, I managed to interview twenty-one academic staff members. As was shown in Table 4.4, only one of the thirteen subgroups lacked interviewees (the group x), which I believed, would not constitute a fundamental flaw in the sampling.

- Student-tutors and political tutors

From the autumn of 2013, Zhejiang University started to recruit full-time PhD students as student-tutors to facilitate lectures and organise seminars for undergraduate students, learning the practice that has been quite common in

³⁸ Other distant communication tools such as Skype and telephone were not adopted considering factors such as time, cost, and record keeping.

Western universities. Because this was a relatively new change in *tongshi* education, the group of student-tutors was still quite small during the time of my fieldwork, around twenty, and they were mainly involved in *tongshi* courses in the humanities and social sciences. I decided to interview some of the student-tutors despite the fact that its implementation was still at a primitive stage. I believed that they could be useful informants on the substantive topics of the research because of their own experiences in the institution, and their current status as teaching assistants.

Political tutors are staff of the political department, the University Committee of Chinese Communist Youth League, which presents in all Chinese higher education institutions. Political tutors' main task is to promote students' political conformity through supervising students' residence life and extra-curriculum activities. In this way they are involved in the implementation of *tongshi* education at Zhejiang University.

Because their information was not made public, I contacted some of them through my personal links: some friends from my undergraduate time were student-tutors or political tutors and were able to introduce me to their small networks (not all the tutors were included). I carried out these interviews at the beginning of my fieldwork, as a pilot of my interview schedule, and as an opportunity to practise my interview technique. Two student-tutors and two political tutors were interviewed. At the end of the interviews with them, I requested suggestions from them about my interview questions with other groups.

- Students

The student interviewees were recruited in two ways. Firstly, an invitation letter was posted on the intranet discussion website mentioned earlier (in the section 'academic staff members'). According to my own experience, this website was a popular information centre for most students. Therefore, a post there would catch their attention if they wanted to express their experience of *tongshi* education. They could reply to me privately or report interest by leaving an answer below the post publicly.

University students from different majors, and in their second, third and fourth year were invited. First year students were not involved because during the time of the fieldwork, they were on their first semester of undergraduate study, thus I believed that they probably would not be well placed to engage in the sort of reflective conversation about their experience that the objectives of the research demanded.

Within one week, seven students expressed interest. Three of them then cancelled participation for different reasons and finally four students agreed to take part in one-to-one in-person interviews. A second group of student interviewees was recruited with the help of the student-tutors. I decided to organise group interviews to encourage more students to participate. The student-tutors shared the invitation with their students through online communication application (WeChat groups) and encouraged them to take part. Two group interviews therefore were organised, with four students in each. The group interviews were arranged after two *tongshi* classes, in the classrooms where the classes were held. Altogether twelve students participated in interviews.

4.5 Data analysis

It is difficult to make a clear distinction between data collection and data analysis (Ball 1983). The process of making sense of the data had already been interwoven with data collection and from the moment I read the documents or entered the field. That said, in this section I will mainly focus on the intensive desk-based analysis took place after the fieldwork, about how the data were kept, organised, analysed, and present.

4.5.1 Data organisation

I firstly worked out a way to organise, keep and present data for further analysis. I made a list of all the materials that had been collected, and printed out three copies of each: one for original records and the remaining two prepared for coding. All the documents were printed in double line spacing and on single sided paper for convenience during coding and noting. The materials

were kept in different files according to their types. The policy documents were arranged in chronological order. The interview transcripts were filed according to different groups of interviewees.

For the purpose of anonymity, every interviewee was assigned an ID number combining English letters and numbers. For example, university administrators were given ID numbers such as 'A01', 'A02', with 'A' indicating their role as administrator. Academic staff members were given ID numbers such as 'TP01', 'TA03', or 'TL06_M'. 'T' refers to 'teacher', 'P' 'A' 'L' indicate the title of the academic staff member, respectively referring to 'professor' 'associate professor' and 'lecturer'. The suffix '_M' means that it was an e-mail interview. Students' ID numbers followed the pattern 'S201' 'S402'. 'S' refers to 'student', the first digit number, '2' '3' or '4', indicating their year of study, while the latter two-digit number is the serial number, as with those of the administrators and academic staff members. The serial numbers were given according to the chronological order of the interviews. The list of interviews is provided in Appendix 4-C.

4.5.2 Transcription and translation

All interviews were conducted in the Mandarin language and were transcribed in Chinese for a verbatim record. I started to transcribe the interviews during the fieldwork, which gave me a chance to look through the process and make adjustments to future interviews. Analysis was conducted based on the Chinese transcripts because it was felt that using my first language would enable me to get a better sense of the meanings embedded in the interviews. Segments of the interview were translated into English when extracts were needed to illustrate and substantiate a particular point (as will be presented in the following chapters).

One important concern for the translation, as identified by Venuti (1998, cited in Ross 2010), is the balance between domestication and foreignisation. The problem is whether to keep in the translated text as much as possible of the characteristics of its original context, or to assimilate the destination culture and hide the foreign factors. The choice here is important because, in the data,

there are numerous terms that are both unique in the Chinese context while also similar to certain English terms. The most obvious example, the term '*tongshi* education', in my thesis follows the foreignisation principle (rather than using 'general education' or 'liberal arts education') in order to present its uniqueness. However, if all the relevant terms were dealt with in this way, the translated text would be unreadable. Therefore, the principle I used was to find as accurate English words and terms as were possible, and meanwhile explicitly mark the underlying differences.

4.5.3 Thematic analysis

For data analysis, I followed the sociological tradition that uses text as a 'window into experience' more than the linguistic tradition which describes how texts are developed and structured (Ryan and Bernard 2000). Therefore, thematic analysis was used as the main approach in this research, instead of discourse analysis which would pay more attention to the underlying tensions of the construction and production of the text. Specifically, the approach of phenomenological interpretation was followed to explore the academic staff members' perceptions of *tongshi* education. In Figure 4.4 that follows I describe the general process of data analysis.

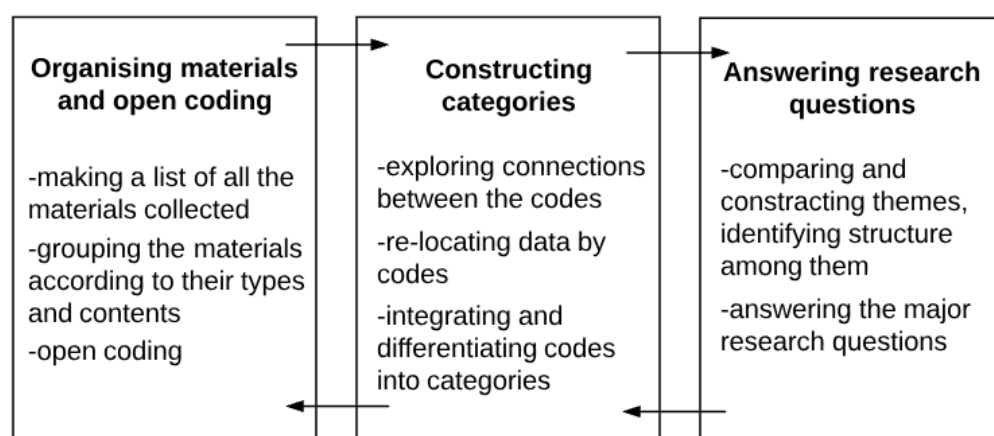


Figure 4. 4 The process of data organisation and analysis

For interview transcripts, the analysis began during the process of transcription, when I took several immediate notes to link the data segment to a certain research question, and to mark any segment which possibly

contained richer information. When the intensive desk-based open coding started, I decided to start from the transcripts which already had the most notes, because they were more likely to lead to more codes, and to facilitate the analysis of the remaining transcripts. Once analysis of these transcripts was finished, a set of codes could be developed. The remaining data were then examined to provide more evidence, counter examples, or new codes.

The four overarching research questions, and their second-level questions (Figure 4.2 in Section 4.2) were continually reflected on and rephrased during the process of open coding, when key terms and issues were identified from the data. In the early stages, reading through the materials was characterised by a high degree of openness to possible meanings. In Appendix 4-D, I gave a piece of translated interview transcript, as an example of open coding.

After the first round of open coding, readings became more focused on particular aspects, while still retaining openness to new interpretations. I focused more on exploring the connections of codes to identify categories and themes, to 'relocate data' according to the codes and categories (Cohen et al. 2011). Ultimately, I compared and contrasted the categories and themes, which systemically illuminated *tongshi* education as a whole subject from different perspectives, answering the major questions of the research. The interpretation of the data was developed from openness to a structured coding system to answer the research questions, and the whole process was inevitably iterative (Figure 4.4), involving 'the continual sorting and resorting of data, plus ongoing comparisons between the data and the developing categories of description, as well as between the categories themselves' (Åkerlind 2012).

4.5.4 Phenomenography

The basic analysing technique in this research is thematic analysis, as has been described above. But the analysis was also inspired by phenomenography, particularly in exploring the academic staff members' perceptions of *tongshi* education. In this section, I will give a brief introduction to phenomenography, and then explain how it was adopted in my research.

Phenomenography initially emerged from a strongly empirical rather than theoretical or philosophical basis. It started out as an approach to scrutinise and understand human learning by focusing on what people are in fact doing in situated learning practices when they study (Entwistle 1997; Marton 1981; Marton and Booth 1997). Usually phenomenography is embedded in interview-based qualitative research, where the interviews are concentrated on interviewees' descriptions of experiences and understanding of certain conceptions in detail and at length. It is presumed that there are various qualitatively different understandings of the same learning object by different students. The various understandings are to be examined and compared from two dimensions: structural and referential. The structural dimension refers to what is perceived and how the elements of what is perceived are related to each other; the referential dimension refers to the meaning given to what is perceived (Marton and Booth 1997). Based on the two dimensions, the different understandings are placed in a hierarchical structure, where the most sophisticated understanding among all the understandings is identified. This most sophisticated understanding then is further used to inform and promote the practice of teaching and learning.

Nowadays, phenomenography has also been adopted in many areas of higher education studies, especially to explore stakeholders' perceptions of a certain conception in policy developments. For example, Åkerlind's research explores academic staff members' understanding of 'university teaching' (2008), concluding that a student-centred understanding or conception of teaching is more advanced, complete and inclusive than a teacher-centred one. Barrie's (2004, 2006, 2007) research on academic staff members' understanding of 'generic attributes' provided a hierarchy of increasingly complex understanding of the concept. Other examples can be found in studies on 'student diversity' (Woollacott et al. 2013), 'internationalization of higher education' (Ojo and Booth 2009), 'academic development' (Åkerlind 2011), 'tutorial' (Ashwin 2005), and 'teaching and learning at universities' (Åkerlind 2008; Mbabazi Bamwesiga et al. 2013).

In my study, the phenomenographic approach was adopted to explore academic staff members' perceptions of *tongshi* education. In the interviews, the academic staff members were encouraged to describe their perceptions and experiences of *tongshi* education in their own words and in great detail. As mentioned in Chapter 3, it was not just about whether a respondent liked or disliked *tongshi* education, but rather on the substantial description of his understanding of the meaning of *tongshi* education, which is embedded in his experiences. Following the phenomenographic approach, the various understandings of the meaning of *tongshi* education identified from the data were interpreted. A comprehensive conceptual map of *tongshi* education was then constructed, which contained different perceptions from different interviewees. This process will be further explained in Chapter 6.

Why was the approach only adopted to analyse academic staff members' perceptions, instead of all the participants? First, it was because the number of administrative leaders, student-tutors and political tutors, who were interviewed in this study was too small for phenomenography. Second, student interviews reported more about their attitudes, rather than perceptions on 'what *tongshi* education is and should be', thus their opinions did not serve as the best materials for phenomenography.

4.6 Reflexivity and research ethics

In this section, I will discuss the trustworthiness of this qualitative case study, my role as a researcher with a cross-cultural stance, and the ethical issues.

4.6.1 Trustworthiness of a qualitative case study

It has been argued by many scholars (e.g., Lincoln 1995; Shenton 2004; Tracy 2013) that the issue of trustworthiness in qualitative research should not be addressed by the concepts of validity and reliability in the same way in positivist work. In this section, Guba's (1981) four criteria will be used as a framework to discuss the trustworthiness of my case study on the *tongshi* education reform at Zhejiang University.

- Credibility

The first criterion is credibility, which is equivalent to the concept of internal validity in positivist research. According to Merriam (2009), credibility deals with the question, 'How congruent are the findings with reality?' To ensure that a true picture of the phenomenon under scrutiny is being presented, I tried to make my research methods clear, reasonable and convincing.

In my case study, different types of information sources were used in the process of data collection, including official documents, student-managed online platform, and conversation with a wide range of informants. Different groups of informants, i.e., policymakers, administrators, academic staff members, student-tutors, political tutor, and students, played different roles in the reform. The experience and perception of *tongshi* education they reported, therefore, contribute to a comprehensive and complex description. In particular, the sampling of academic staff members and students followed the principle of diversity, so that informants from various backgrounds were included in this case study.

The process of sampling described in Section 4.4 and 4.5 ensured that my study only included those who were genuinely willing to take part and prepared to offer data freely. The interviewees were encouraged to talk about their own experiences and perceptions, and they were told in the opening moment of interview that there were no right or wrong answers to the questions I would ask. In the interview I emphasised myself as a former student of Zhejiang University who had myself experienced *tongshi* education. This helped me to establish a rapport with the interviewees.

The interviewees were asked about their experiences of *tongshi* courses, understandings of *tongshi* education, and suggestions for better practices. This encouraged interviewees to reflect on and talk about *tongshi* education from multiple aspects, and in sufficient details. After transcription, I sent every interviewee his or her piece of transcript, so that interviewees could check whether that they wanted to express was accurately recorded.

- Transferability

The second criterion, transferability, is about the extent to which the findings of one study can be applied to other situations (Carminati 2018). This criterion is particularly controversial for a qualitative case study, because each case study is embedded in its own unique context (Darke et al. 1998; Donmoyer 2009). Stake (1995) and Denscombe (2014) argue that each case is an example within a broader group, thus investigation on individual cases could contribute to understandings of the whole group. Many scholars point out that it is the responsibility of the investigator to ensure that sufficient contextual information about the fieldwork sites is provided, so that readers could decide whether there is similarity between the presented cases and their own situations (Firestone 1993; Gomm et al. 2000; Shenton 2004; Walford 2001).

As was discussed in Section 4.3, the *tongshi* education reform at Zhejiang University was selected as the case in my study because it contains several different features from the cases which had been investigated. In this way, I tried to contribute to a more diverse collection of cases, which would help us to develop a more comprehensive understanding of the phenomenon of *tongshi* education. In Chapter 5, I will give sufficient contextual information, about the history and current situation of Zhejiang University. I will also make detailed description on the policy process and participants, so that the reader could compare this case study with other case studies on *tongshi* education or university curriculum reforms (like those I listed in Chapter 3), to attain transferable insights.

- Dependability

In positivist research, reliability is checked by repeating the experiment in the same context and with the same methods, to see whether similar results would be obtained. The meeting of this criterion is difficult in qualitative work which scrutinises the changing phenomenon in its natural context (Guba 1981). The concept 'dependability' in qualitative studies thus stressed the importance of reporting the processes of the research in detail, so that the reader could assess the extent to which proper research practices have been followed

(Shenton 2004). In the previous sections of this chapter, I have tried to describe the processes and methods of data collection, organisation and analysis. I also discussed my reasons and considerations for these strategies, in order to give the reader sufficient information about the research design and its implementation.

- Confirmability

The fourth criterion confirmability, comparable to the concept of objectivity in science, addresses the issue whether the findings of a qualitative study emerge from the experiences and ideas of the informants, rather than the predispositions and preferences of the researcher (Miles 1994). This criterion is challenging for qualitative research because the researchers are usually instruments of the data collection, and their personal experiences, values, assumptions, and biases can easily affect the process of data collection and analysis. Therefore, when discussing the findings of this case study (in Chapter 5, 6, 7 and 8), I found it was important to distinguish between what was directly reported by the informants, and what was my interpretation based on evidence, so that the reader would be aware of the beliefs underpinning my analysis and conclusions.

4.6.2 Researcher identity: an insider and outsider

As was mentioned earlier, as a former student at Zhejiang University (four-year undergraduate and one-year post-graduate), I found myself to be both an insider and an outsider of the University when conducting this case study. On the one hand, being familiar with the University and its culture helped to smoothen data gathering in my study, in terms of gaining access, establishing rapport with informants, and identifying implicit information from informants which might be difficult for a researcher who was unfamiliar with its subculture. On the other hand, it also entailed the risk of bias, because, with or without awareness, my past experience of *tongshi* education would influence my decisions of research design and my interpretation of informants' accounts. In the above section I have discussed how I tried to ensure the trustworthiness

of this study, so that I hope my 'insider' identity made a positive contribution to explaining the complexity of *tongshi* education at Zhejiang University.

Another issue of my researcher identity stems from the cross-cultural stance: being a Chinese student based at a university in Scotland, while conducting a case study in a Chinese university. I am ethnically Chinese and received all my education in China before starting my PhD study in Scotland. The topic I work on is about the undergraduate education in a Chinese university with a global context in mind. I have an intuitive understanding of Chinese culture and was able to establish initial bonds with my interviewees relatively quickly because of the Chinese language we all spoke and my previous experience in that university. I was able to sense undertones during the interviews.

The fact that I was doing my PhD in a Scottish university, writing the thesis in English and reporting to English readers, pushes me to look at and think about *tongshi* education – the object I have been familiar with – in a way different from a pure 'insider'. If I had been working as a researcher based in Zhejiang University, probably less attention would be paid to the background information such as the history of Chinese higher education and of Zhejiang University, while more information would be required on the development of general education and liberal education in the West. If I wrote my thesis in Chinese, I might fail to notice the necessity of explaining the literal meanings of '*tongshi*' because it was so much taken for granted in Chinese (discussed in Chapter 3, Section 3.2). In this sense, writing in a different language is more than using a different instrument of expression, but more importantly, brings in a different perspective. It also brought challenges such as accurate translation of the various terms, to convey an 'international understanding' (Williams 2015, p18) which can be shared by readers in different contexts.

In the tradition of cultural anthropology, there is the emic-etic distinction (Headland et al. 1990). An etic view of a culture is the perspective of an outsider looking in. An emic view of culture is ultimately a perspective focused on the intrinsic cultural distinctions that are meaningful to the members of a given society, often considered to be an 'insider's' perspective. From my own

experience of this case study, I found myself frequently shifting between the etic and emic views. By exploring questions such as 'Whether *tongshi* education is indigenously Chinese or adapted from the Western tradition?', and challenging my own emic-view answers by those of an etic view, I gradually managed to articulate the underpinning complexity, which, constitute the main finding of this thesis. I believe, this experience, would continuously inspire me to think about the broader topic on Chinese-Western conflict and communication.

4.6.3 Ethical considerations

This study rests upon the Ethical Guidelines for Educational Research (EGEH) 2011 provided by the British Educational Research Association (BERA). It is a 'level 1 study', which involves topics that are not generally considered as sensitive. The main issues are anonymity and confidentiality. Informed consent was gained from all the participants, and they were informed that they could withdraw from the study at any time if they so chose; their identity would be anonymous in the thesis; and the data would be stored safely so that only I as researcher would have access to the data (Appendix 4.j and 4.k). The printed copies of transcripts were kept in a private cabinet in my office which I kept locked all the time. The machine-readable copy of transcripts was kept in my personal laptop which was password-protected. A particular challenge was presented by the interviews with the senior university administrators, who were quite recognisable because of their position and role at the University. These issues were discussed with them and they agreed that they would take the stance of representing the university, and participate in the interview as an opportunity for getting people to understand the university policy. Thus these individuals are not named, but no further attempts are made to conceal their identities.

Another issue is that I gained contact with several academic staff members with help from a colleague in the administrative department, and some students with the help of student-tutors. Such an approach would to some extent affect the informants because they would regard the research as an

evaluation of the University. I tried my best to explain to them that the research was not an assessment of the teachers and students, but that it was an independent PhD research project intended to learn more about the everyday practice of the reform and how people feel about it.

4.7 Summary

This chapter has been devoted to a detailed and comprehensive description, justification and evaluation of the methods that I employed in this research. The process of choosing a site for the case study, data collection before, during and after the fieldwork in China, analysis and organisation of data, were introduced. I described the process of contacting and recruiting different groups of interviewees. Basic information about the interviewees and the interviews was provided. The data were thematically analysed through an iterative process, which was performed on Chinese texts to retain the social and cultural meaning of the language. I also explained why and how phenomenography was applied to one part of my investigation. Finally, I reflected on the ethical issues in this research as well as my stance in this cross-cultural study as a researcher.

Chapter 5 The *tongshi* education reform at Zhejiang University: policy development and implementation

5.1 Introduction

This chapter probes the first of the four research questions raised in Chapter 3, i.e., **what are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?**

Drawing primarily on the evidence gathered from documentation, including reform documents and University yearbooks, and interviews with policymakers, this chapter will focus on the institutional agenda and strategies of *tongshi* education. In the following parts of this chapter, I will first give a brief introduction to the history and the current situations of Zhejiang University to describe the historical-social context where the reform took place (Section 5.2). Then the process of how *tongshi* education came into being and replaced the old curriculum at Zhejiang University will be discussed. The claimed objectives, strategies, participants, and changes will be elaborated (Section 5.3). This chapter ends with a discussion on the rationale of the reform, especially the global-national-local dynamic underlying its agenda and the tension between the administrative, academic and political groups in the process of reform development and implementation (Section 5.4).

5.2 The story of Zhejiang University

Zhejiang University is located in the city of Hangzhou, Zhejiang Province, in East China (as shown in Figure 4.3 in Chapter 4). Embedded in the Yangtze River Delta Economic Zone where the earliest efforts of modernisation and Westernisation in Chinese history were made since the 1860s, Zhejiang University was among the first group of modern higher education institutions in China. Its story provides an informative example of the development of modern Chinese universities. In accordance with the historical transformations

of Chinese higher education which have been introduced in Chapter 2, the history of Zhejiang University can be divided into the following four stages:

- 1897-1914: an imperial college during the late Qing dynasty;
- 1927-1949: a national university during the nationalist stage;
- 1952-1998: being divided into four specialist institutions by the communist government;
- 1998 to the present: being remerged into a comprehensive university and a member of the elite league of Chinese research-intensive universities.

5.2.1 1897-1914: an imperial college

In its institutional records, Zhejiang University traces its history back to 1897, when the Qiushi Academy was established in Hangzhou by Lin Qi, a progressive scholar-official of the Qing government (Zhejiang University President Office 2000). It was recorded as the third modern college founded by Chinese individuals or groups in the country. The Qiushi Academy was built on the site of a former Buddhist temple, and its name ‘Qiushi’ was taken from a history book written in 111 C.E., *The Book of Han (Hanshu)*, expressing the meaning of ‘seeking truth’ (Zhejiang University President Office 2000). Driven by the ethos of national self-strengthening in the late Qing dynasty, the Qiushi Academy focused on training skilled workers for practical industries such as shipbuilding, mining, agriculture and manufacturing (Hayhoe 2007). The Qiushi Academy offered a kind of tertiary education to its students, who had already gained basic knowledge in the traditional Chinese classics when enrolled, which contained both modern science and technology and further study in traditional Chinese classics.

Although confronted with doubt and criticism from the beginning, modern colleges like the Qiushi Academy gradually grew popular among students, and became the mainstream of tertiary education, especially when the traditional Imperial Examination was abolished in 1905. In 1903, the name ‘Qiushi Academy’ was replaced by ‘Zhejiang Higher Learning School’, which indicated a further move to modernisation (Zhejiang University President Office 2000). By 1911, when the first Chinese Nationalist government was established,

Zhejiang Higher Learning School had become one of the largest modern institutions in the province, with more than 500 students. However, during the following educational reform by the new government in 1914, the School split into two specialist colleges on agriculture and engineering.

5.2.2 1927-1949: a national comprehensive university

After a series of civil wars, a second Nationalist government was established in the city Nanjing by the Chinese Nationalist Party in 1927. The government started to build a national educational system by transforming the existing institutions and establishing new institutions. In 1927, the Third National Sun Yat-Sen University³⁹ was built on the old site of the Qiushi Academy. Its name was soon changed to 'National Zhejiang University' in 1928. National Zhejiang University was among the first thirteen major national universities. As a comprehensive university, the institution consisted of three colleges: the college of engineering, the college of agriculture, and the college of sciences and humanities.

The official rhetoric of Zhejiang University today speaks highly about the period 1936-1949 under the presidency of the well-known Chinese meteorologist, Zhu Kezhen (Zhejiang University President Office, 2000). Under Zhu's presidency, the University managed to gain a rapid development in both research and teaching and became one of the leading universities in China. Zhu Kezhen chose the old term '*qiushi*' – seeking truth – as the motto of the University to express the idea that university education should foster truth-seekers who devoted themselves to the advancement of modern knowledge, which is believed to be the foundation of China's self-strengthening movement. The motto is still adopted in Zhejiang University today and regarded as an important part of the University's organisational culture.

³⁹ There were altogether four National Sun Yat-Sen Universities established in 1927 by the central government, named after the legendary Nationalist leader Sun Yat-Sen. The First National Sun Yat-Sen University was in Guangdong Province (South China), which is now Sun Yat-Sen University. The Second National Sun Yat-Sen University was in Hubei Province (Central China), which is now Wuhan University. The Fourth National Sun Yat-Sen University was in Jiangsu Province (East China), which is now Nanjing University.

In 1937, staff members and students of the University had to move from Hangzhou to a southwest city, Guizhou, due to the fact that the Second Sino-Japanese War had placed East China under the control of the Japanese army. Despite the limited resources during this period, teaching and research were continued. The institutional records particularly highlight the story that the English scholar Joseph Needham, during his two visits of the University in 1944, was so impressed by the University's academic achievement that he praised it as 'the Cambridge University in the East' (The Committee of Local History in Guizhou 1990). The University moved back to its original locus in Hangzhou in 1946 after the Second Sino-Japanese War ended.

5.2.3 1949-1998: four separate institutions

The Chinese communist government was established in 1949, and it started to develop a centrally-controlled, vocationally-oriented higher education system following the Soviet model in 1952. Comprehensive universities built in the Nationalist period were demerged into specialist colleges. National Zhejiang University split into four different institutions and a large number of its staff members were transferred to the newly-established Chinese Academy of Sciences and some other universities in Shanghai. The four new institutions were located in four different campuses in the city of Hangzhou:

- Zhejiang University: an institute of technology which kept the departments of engineering and applied sciences of the former National Zhejiang University;
- Hangzhou University: a so-called comprehensive college which kept the departments of basic sciences, arts and humanities, and social sciences. Meanwhile, an old missionary college, Zhijiang College, was also merged into Hangzhou University;
- Zhejiang Agricultural College: a specialist institution in agriculture; and
- Zhejiang Medical College: a specialist institution in medicine.

The implications of the demerging are two-fold. First, due to the high degree of isolation between the four institutions, the organisational identity and culture developed since the Nationalist period was discarded. Second, the new Zhejiang University that inherited the old name and main campus was nominated by the central government as the leading institute of technology in

the East China district, which meant it was given extra resources in technology education while other subject areas in the remaining three institutions were less developed. As a result, after the reunion of the four institutions in 1998, the University found it was confronted with the challenges of rebuilding organisational identity and of dealing with a departmental imbalance.

5.2.4 1998-the present: re-mergin and development as an elite research-intensive university

Following the ending of the Cultural Revolution in 1977, major economic and social reforms were launched to recover China's market and international connections. In the education sector, the Soviet-style system of higher education which mainly consisted of specialist colleges also began to see changes (Chen 2010b; Li 2006). From the late 1990s, the government decided to rebuild comprehensive universities by bringing together specialist institutions. A new comprehensive Zhejiang University was established in 1998 by combining its four institutions which were originally joined before 1952. The new Zhejiang University contains a wide range of subjects⁴⁰ and has particularly large and strong departments in engineering studies and informatics. Figure 5.1 and 5.2 show the disciplinary makeups of undergraduates and academic staff members at Zhejiang University in 2015 (Zhejiang University President Office 2017).

⁴⁰ A list of all its colleges and schools is offered in Appendix 5-A.

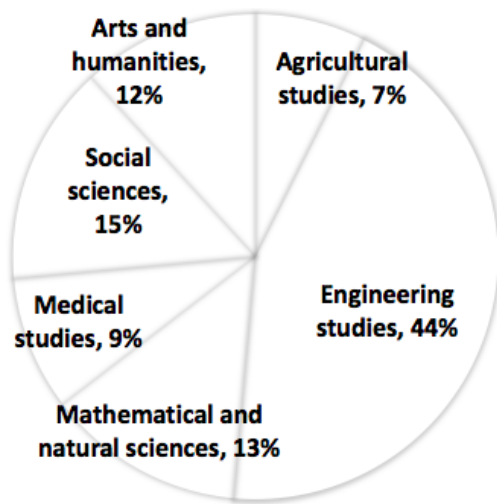


Figure 5. 1 Undergraduates of Zhejiang University 2015: by disciplinary areas

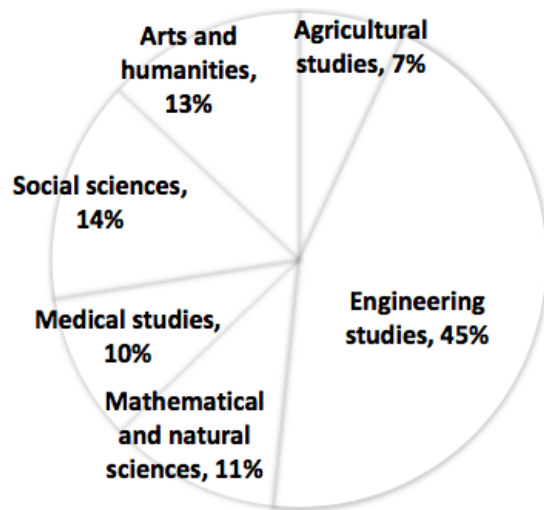


Figure 5. 2 Full-time academic staff members of Zhejiang University 2015: by disciplinary areas

In 1999, Zhejiang University was selected by the government to join the two national elite leagues: ‘21/1 universities’ and ‘98/5 universities’. These two leagues (as introduced in Section 2.5.2) were launched by the government as an important strategy for building world-class universities in China. Zhejiang University, among dozens of other universities, has been highlighting the aspiration of pursuing global competence and reputation in teaching and research through many of its policies and reforms (Zhang et al. 2013). The University is placed somewhere between 100 and 200 in world university rankings, although the rankings themselves are controversial because of the idea of applying standard criteria to measure a diverse group of universities. According to the Academic Ranking of World Universities held by the independent organisation *Shanghai Ranking Consultancy* in Shanghai, Zhejiang University ranked in the slot 301-400 in 2003 and has risen to 101-150 in 2017 (ShanghaiRanking Consultancy 2018); while in the UK Times Higher Education World University Ranking, it ranked 177 most recently (Times Higher Education 2018).

Since the late 1990s China has seen a dramatic increase in undergraduate student enrolment due to the government’s policy of developing a mass higher education system. As was mentioned in Chapter 2, the increase mainly took

place in teaching-oriented universities and vocational colleges, while research-intensive universities like Zhejiang University were less impacted and only recruited from the small group of students who perform best in examinations. However, their postgraduate programmes have been expanding quickly, as is shown in Figure 5.3, which I produced according to statistics revealed in University yearbooks (Zhejiang University President Office 2005, 2006, 2008, 2009a, 2010; 2014; 2015, 2016, 2017).

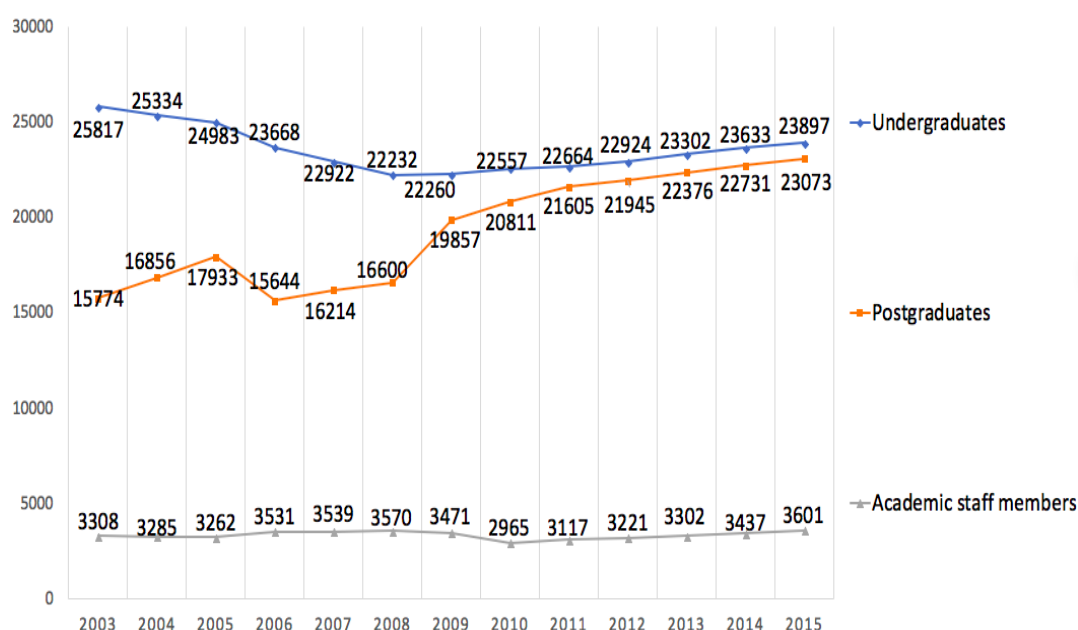


Figure 5. 3 Populations of undergraduates, postgraduates and academic staff members at Zhejiang University: 2003-2015

As we can see from Figure 5.3, since the early 2000s, the populations of undergraduates and academic staff members have been keeping relatively stable, while the population of postgraduates has been growing. There are two reasons behind the significant growth in postgraduate enrolment. First, there has been a rapid increase of graduates since the early 2000s because of the boost in undergraduate enrolment in the late 1990s. A large number of graduates choose to seek for a higher degree to promote their competency in the human resource market (Huang 2006). Therefore, there has been an increasing number of applications for postgraduate education. Second, the universities of the national elite league, i.e., '21/1 universities' and '98/5 universities', driven by the aspiration of becoming world-class research-

intensive universities, have been developing their postgraduate programmes to recruit more postgraduate students.

Zhejiang University has also been expanding in the size of its physical campuses. At the time of its re-merging in 1998 the University had five physical campuses encompassing different schools and departments. In 2002 the Zijingang Campus opened and has become the largest campus of Zhejiang University. The old campuses have been kept open (one closed in 2008) while some of their departments moved to the Zijingang Campus (i.e., the Business School and the Medical School). All students study and live at the Zijingang Campus during their first two years and then around three quarters of them move to other campuses where their schools and departments are based. In 2007, most of the University administrative offices also moved to the Zijingang Campus.⁴¹ The fact that three quarters of students (those in engineering studies, mathematical and natural sciences, arts and humanities, agricultural studies) spend their first two years at the Zijingang Campus and are transferred to a different one in the last two years has been an important factor influencing the curriculum and student experience, which, as will be mentioned later in this chapter, is highly relevant to the design and implementation of *tongshi* education at Zhejiang University.

In the following sections I will delineate the process and strategies of the *tongshi* education reform at Zhejiang University, where we will find many of the above-mentioned historical and institutional factors weaving into a complex context.

⁴¹ Moreover, another two campuses opened later in two different cities in Zhejiang Province. These two campuses are less related to undergraduate education, therefore, I will not go in-depth here. In 2012, the School of Oceanography was established in cooperation with the local government of Zhoushan City in Zhejiang Province, to promote education and research in Oceanography; and in 2016, an international campus was established in Haining City, which encompasses several internationally cooperative laboratories, research centres and international education programmes. This campus was built in cooperation with the Imperial College London, University of Edinburgh, and University of Illinois at Urbana-Champaign (Zhejiang University, 2017)

5.3 The *tongshi* education reform at Zhejiang University: aim, strategy and process

Tongshi education was not completed in one move at Zhejiang University. Instead, it was an exploratory process where changes took place step by step to transform the old curriculum as well as the organisational structure and management. According to institutional policy documents and interviews with policymakers, I identified the following four main steps of the reform.

- In 1995 a new category of courses, i.e., public elective courses was introduced into the undergraduate curriculum at Zhejiang University, as an institutional response to the national project 'Education for Cultural Quality'. This category of courses later became an important component of *tongshi* education.
- In 2002 there was a growth in public elective courses in terms of the quantity of courses offered, the number of participating teachers, and the portion of the courses on students' timetables.
- In 2006 a new set of terminologies was adopted to restructure and redefine the undergraduate curriculum, with the concept of '*tongshi* education' being highlighted. The category of '*tongshi* course' became a prominent component of the curriculum.
- In 2008 the University changed its methods of student enrolment, administrative management and organisational structure to enhance the curriculum changes.

The following parts of this section will describe these changes in more details with discussions on the reasons for, and implications of, each change.

5.3.1 1995: the national project of 'Education for Cultural Quality' as the predecessor of *tongshi* education

In the 1980s the curriculum in most – if not all – Chinese universities was constituted of only two components: **specialism courses** for specialised vocational training and **public compulsory courses** for political-ideological education and other skills required by the government such as foreign languages (Jones 2002). In the early 1990s, as has been mentioned in Chapter 2, a group of scholars and university administrative leaders started a discussion in journals and newspapers, advocating that university education should also develop students' cultural quality (Li 2006). The term 'cultural

quality' refers to students' refined taste and manners through a basic learning of arts and humanities, and natural and social sciences, which is regarded as essential for personal and social wellbeing (Lin 2010). The scholars' suggestion was adopted by the central government and a national project 'Education for Cultural Quality' was launched in 1995, which introduced a group of 'public elective courses' into the undergraduate curriculum in Chinese universities, and later other types of higher education institutions. 'Education for Cultural Quality' is regarded as the predecessor of *tongshi* education by many scholars because the group 'public elective courses' later became an important component of *tongshi* education (e.g., Li 2006; Pang 2009).

Now I will give a brief introduction to the three categories of the curriculum at Zhejiang University, i.e., specialism courses, public compulsory courses and public elective courses.

(1) Specialism courses

Specialism courses made up about 70% of a student's timetable at Zhejiang University, organised around specialised disciplinary or professional areas. During the 1980s, these courses were grouped and structured in a very rigid form to serve the narrowly divided professional occupations, due to the remaining influence of a Soviet-style work allocation system where all the graduates would be allocated to specific positions in state-controlled enterprises, factories and institutes. Since the late 1980s, with the growing market economy and private companies, the work allocation system has been abandoned to make students compete in the human resources market (Chen 2010b). Accordingly, Zhejiang University, along with some of its counterparts such as Peking University, started to promote the knowledge breadth of its curriculum by including more content on basic disciplines such as mathematics and natural sciences, and academic training. It was pointed out that knowledge breadth and a sound study of basic subjects would be vital for students' personal development and successful careers in the fast-changing future (Li 2006). These changes, although not a part of the project 'Education for Cultural Quality' at this stage, was later continued in the *tongshi* education reform.

(2) Public compulsory courses

The name ‘public compulsory’ means that courses in this category were prescribed for all college and university students in China, regardless of the institution or department in which they enrolled. All these courses were provided according to strict national standards, i.e., curriculum content, textbooks and examinations were developed by specific national committees within the Chinese Ministry of Education and practised in every institution. This category contained four themes (Table 5.1): political-ideological education; physical and military training; foreign languages; information and communication technology (ICT), which represent the communist government’s idea of the necessary attributes of a qualified member of modern Chinese society. That is, in addition to professional knowledge and skills, students should also be educated for political conformity, physical fitness and discipline, bilingual ability and digital literacy. This category made up around 25% of students’ timetables. Table 5.1 lists the specific courses and percentages of the students’ timetable for each theme using the information collected from Zhejiang University (Zhejiang University, 1998).

Table 5. 1 Public compulsory courses: themes and contents

Themes	Contents	Portions
Political-ideological education	<ul style="list-style-type: none">• Marxism• Maoism and the Theories of Socialism with Chinese characteristics• Modern Chinese History• Morality and Law• Policy study	8.2%
Physical and military training	<ul style="list-style-type: none">• Physical exercises• Military theories• Military training	5.2%
Foreign languages	<ul style="list-style-type: none">• College English (those specialising in English could choose a different language)	4.3%
Information and communication technology	<ul style="list-style-type: none">• A basic introduction to computer and information technology• Programming languages (several choices)	3.0%

This group of courses became a very large part of *tongshi* education at Zhejiang University after 2006 without changes in the contents. As will be

discussed later, this causes problems in teaching and learning, especially because of the tension between promoting political conformity and fostering critical thinking, which is claimed to be an important objective of *tongshi* education.

(3) Public elective courses

The category of public elective courses was a direct creation by the national project 'Education for Cultural Quality'. The name 'public elective course' indicates two features of the category: (i) 'public' – like 'public compulsory courses' – means that these courses were provided to all students in different departments; (ii) 'elective' means that a student can choose some courses to attend from a range of options according to individual interest. Unlike 'specialism courses' and 'public compulsory courses', 'public elective courses' were not prescribed in advance on students' timetables.

Between 1995 and 2001, public elective courses made up about 3% of a student's timetable (Zhejiang University, 1998), which means that usually a student would take at least two or three courses during the four-year programmes, requiring one or two hours per week for around thirty weeks (30-60 hours in total). Compared with the other two categories, the public elective courses at this stage were still a very small fraction of the whole curriculum, which were mainly developed by a small group of teachers in arts and humanities, social sciences and natural sciences. That said, by introducing such a group into the curriculum the message was sent that university education should play an important role in fostering culture among students through learning humanities and natural sciences. This idea was further developed in the later *tongshi* education reform.

5.3.2 2002: *tongshi* education being explored through a growing body of 'public elective courses'

In 2002 there was a considerable growth in the category of public elective courses at Zhejiang University, manifested in the following aspects. First, in students' timetables, the portion of public elective courses increased from 3%

to 15% while specialism courses decreased from 75% to 63%. Second, a larger and more diverse collection of public elective courses were developed which covered all the major domains of knowledge including humanities and arts, social sciences, natural sciences, and applied sciences, while previously only the humanities and natural sciences were involved. Accordingly, an increasing number of academic staff members participated in teaching public elective courses. Moreover, the process of selecting public elective courses was also made simpler for students as the University began to adopt an online curriculum mapping system where students could search courses and schedule their own timetables.

(1) *Tongshi* education and the institutional agenda of a comprehensive curriculum reform

Unlike the government-leading change in 1995, the growth of public elective courses in 2002 was a result of Zhejiang University's own agenda of exploring *tongshi* education, as the start of a comprehensive reform to further transform the narrowly-specialised curriculum. To quote from the guideline document for the reform,

Undergraduate education is central to a university's functioning. A high-quality curriculum is vital not only for students' well-rounded development in knowledge, abilities and personal characters, but also for research excellence ... A new curriculum should be developed at Zhejiang University to promote knowledge breadth and interdisciplinarity ... For this purpose, *tongshi* education should be promoted through public elective courses, so that students could not only develop a general understanding of knowledge of a wide subject range, but also learn to make connections across disciplines.

(The Principles and Guidelines for Undergraduate Curriculum 2002)

According to my search, this was the first time that the term '*tongshi* education' was used in a formal document at Zhejiang University. As we can see from the above excerpt, *tongshi* education was described as an important component for a broadened curriculum, aimed at students' general understanding of a wide subject range of disciplines to contribute to students' knowledge breadth, interdisciplinary learning and well-rounded development. At this stage *tongshi* education was implemented mainly through public elective courses.

In interviews with policymakers who were involved in drafting the document, the process of how the decision was made to introduce *tongshi* education at Zhejiang University was discussed. According to the interviewee A02 (policymaker), in the early 2000s, some senior administrators for the first time noticed the ongoing *tongshi* education reform at Peking University and they believed that the concept of *tongshi* education fitted well with their own intention of building a broadened curriculum. As in Peking University, *tongshi* education was mainly understood as a localised version of the American-style liberal education in the Chinese context. However, I found that no official definition or in-detail clarification was made about the meaning of *tongshi* education in policy documents. The interviewee A02 explained the reason as follows,

Qijuan: According to what I've read from the documents, it seemed that there is no definition of the term '*tongshi* education'. It seems a bit unusual to me. Were there any particular reasons for that? Have there been some other forms of communication with teachers and students to make sure they understand the meaning of *tongshi* education?

A2 (policymaker): ...The basic idea (of *tongshi* education) is not difficult to understand, which is broadened knowledge and general understanding, but we didn't want to make a definition with too many details which could have limited exploratory practices. *Tongshi* education is to introduce the American-style liberal education, but we couldn't copy everything out there because the context is different. It is important, especially at the early stage, to explore with open mind and creativity, of what are effective approaches in teaching and learning... Therefore, we gave more freedom to teachers to explore, and to develop the meaning of *tongshi* education themselves.

(Interview, A02)

The interviewee A02 suggested that, with some core elements indicated in the policy documents, the full idea of *tongshi* education should be developed by teachers in teaching practice, instead of being regulated by the policymakers. Such an approach was adopted to encourage creative and effective strategies of *tongshi* education in practice. However, it has also caused problems such as a lack of shared understanding of *tongshi* education due to inadequate communication among teachers and students, as will be discussed later in Chapters 6 and 7.

(2) The driving factors of the *tongshi* education reform

The reasons that Zhejiang University started to introduce *tongshi* education and to launch a comprehensive curriculum reform in the early 2000s could be understood from several major changes in institutional structure and culture, and from national policies and international interactions that had been taking place at that time.

First, Zhejiang University had been re-building its institutional identity as a comprehensive university since 1998 when it was re-merged by amalgamating four separate institutions. An institution-wide curriculum reform, to some extent, was regarded as a good opportunity for revitalising the shared historical inheritance and promoting a shared vision of the future among the previously separated departments. As was pointed out in the document (Zhejiang University Office of Academic Affairs 2002),

The undergraduate curriculum should embody our long-standing motto of ‘*qiushi*’ (truth-seeking), a valuable heritage to be revitalised in the new era ... It has been our strength to have a complete disciplinary structure which covers all the major knowledge domains. This advantage should benefit our students.

(The Principles and Guidance on Undergraduate Curriculum 2002)

Second, Zhejiang University was selected by the Ministry of Education to be a member of the elite league ‘98/5 universities’ in 1999. Since then, the government’s agenda of ‘building world-class universities’ had been increasingly important in determining the University’s policies. In particular, curricula and teaching practices in Western prestigious universities have been learnt, as a part of the institutional endeavours to promote itself as a world-class research-intensive university. In interview, the policymaker A01 mentioned that liberal education at internationally well-known universities such as Harvard University were studied as exemplars.

Third, as was mentioned in Chapter 2, there has been a considerable growth in undergraduate enrolment since 1998, thus postgraduate programmes were also envisaged to expand. In research-intensive universities like Zhejiang University, an increasing number of graduates have chosen to continue with postgraduate education since the early 2000s. As is shown in Figure 5.4, in

2003, 31.3% of the graduates at Zhejiang University chose to continue with postgraduate education. The percentage has been rising and, in 2015, more than half of the graduates enrolled into postgraduate programmes in either Chinese or overseas universities. Therefore, since the early 2000s Zhejiang University has recognised the importance of preparing their students for postgraduate education in the undergraduate curriculum (Zhejiang University 2002). *Tongshi* education, which highlights broadened knowledge and interdisciplinarity, was thus implemented as an important strategy.

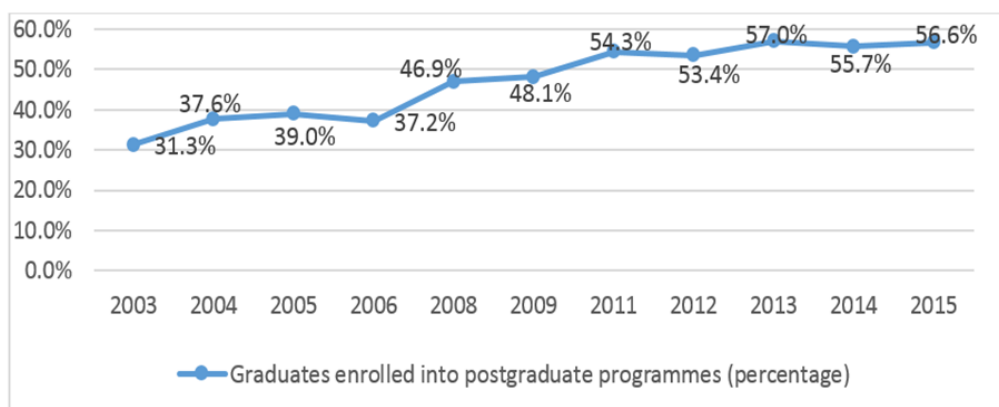


Figure 5. 4 Graduates of Zhejiang University enrolled into postgraduate programmes

To summarise, Zhejiang University's introduction of *tongshi* education is not only an educational reform to update its undergraduate curriculum following the practices in international leading universities, but also a strategic approach to rebuild a shared identity after a major organisational change, and to responding to the government's agenda of building world-class universities. This change in 2002 which explored *tongshi* education through a group of public elective courses was the start of a comprehensive curriculum reform which took place in the following years.

5.3.3 2006: a new curriculum structure highlighting *tongshi* education

The year 2006 saw an overall change in the curriculum structure at Zhejiang University. A new three-category system replaced the old structure, using a set of terminologies which highlighted the importance of *tongshi* education.

There has also been a greater degree of flexibility in the curriculum which allows students to select and schedule their timetable for more personalised experiences. Moreover, according to the policymakers' plan, the four-year curriculum was divided into two stages, with the first one or two years being concentrated on *tongshi* education, before students move to specialism learning.

(1) A new categorisation

The three new categories constituting the curriculum are: ***tongshi* courses**, **specialism courses**, and **free-elective courses**. *Tongshi* courses consist of three sub-categories: *tongshi* compulsory courses, *tongshi* elective courses, and *tongshi* lower-division courses. Functions of the different categories are described in the document *The Principles and Guidelines on Undergraduate Curriculum 2006* (Zhejiang University Office of Academic Affairs 2006).

Tongshi courses should promote students' well-rounded development. In specific, *tongshi* elective courses are to offer broadened knowledge and different ways of thinking which cover a wide subject range, and to promote students' critical understanding of human history and society, and challenges of the global world. (*Tongshi*) lower-division courses⁴² should construct a broadened knowledge base for specialism learning. Specialism courses are concentrated on professional and academic training in one field of study, to guide students from basic concepts to advanced theories, and to promote creativity and innovation ... Some space on timetable is kept for free-elective courses, which allows students to choose courses freely according to his interest or career plan.

(*The Principles and Guidance on Undergraduate Curriculum 2006*)

There are three issues I want to highlight about the new categorisation. First, the change is mainly structural, and takes the form of regrouping courses with new labels rather than developing new courses. In other words, the curriculum content remains largely unchanged, but by labelling more courses as '*tongshi*', the idea of *tongshi* education is highlighted in the curriculum. Figure 5.5 shows how the new categorisation was transformed from the previous one.

⁴² In the 2006 document, this subgroup was called 'lower-division courses'. The name was replaced by '*tongshi* lower-division courses' in 2008.

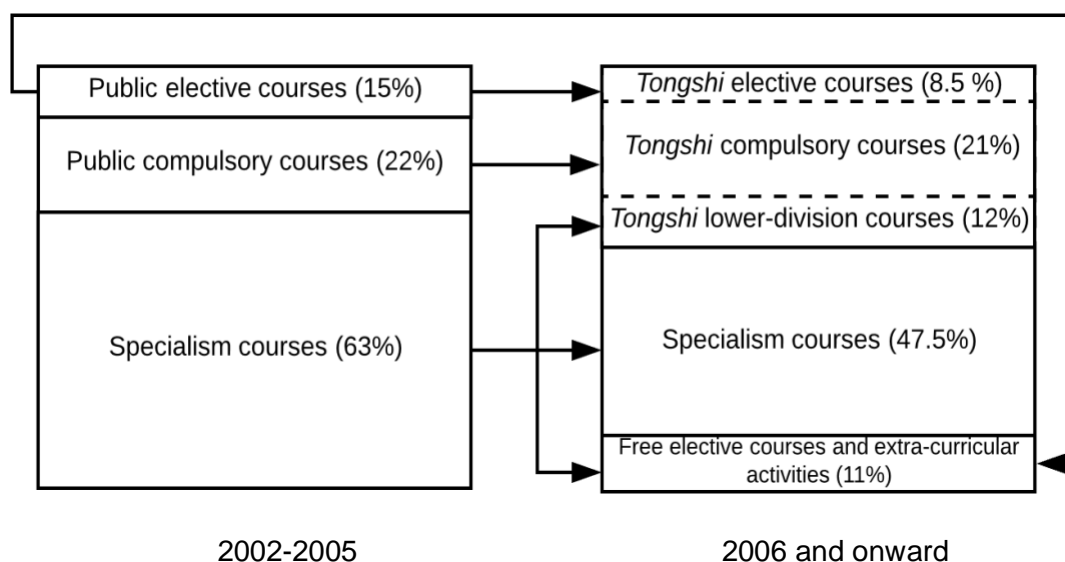


Figure 5. 5 The curriculum structures at Zhejiang University: before and after 2006

As we can see from Figure 5.5, in total, *tongshi* courses, constituted by three sub-categories, take up 41.5% of the students' timetable, making this category a large component of the curriculum. The sub-category *tongshi* elective courses is renamed from the group of public elective courses in 2002; the sub-category *tongshi* compulsory courses is renamed from public compulsory courses. Basically, the label 'public' is replaced by '*tongshi*'. The label 'public' only means 'being open to all students', while the label '*tongshi*' conveys clearer information about the shared objectives of these courses, i.e., to develop a general understanding of broad knowledge which covers a wide subject range.

The sub-category *tongshi* lower-division courses consists of introductory-level courses preparing students for more advanced specialism learning, which were originally labelled as 'specialism courses' in 2002. Therefore, the percentage of specialism courses decreased from 63% in 2002 to 47.5% in 2006. By changing the label of these courses from 'specialism' to '*tongshi*' and adjusting the content, the policymakers highlighted the importance of building a broadened knowledge foundation before students concentrate on a narrow field of study.

Second, there has been a greater degree of flexibility in the curriculum for students to decide what and when to learn and thus to generate more personalised learning experiences. In the new categorisation, 11% of the space on the students' timetable is attributed to a new category, 'free-elective courses', where students can choose any courses according to their own interest (Zhejiang University, 2006). It should be noted that there is not a specific list of free-elective courses, but rather, students can choose any courses: *tongshi* courses, specialism courses, and even courses they attend in other universities in exchange programmes. Moreover, Zhejiang University has also started to adopt academic credit for curriculum management since 2004 which allows students to schedule learning activities according to their own plans instead of following a common timetable prescribed for all students.

In interview, the policymaker A03 pointed out that a more flexible curriculum was to serve the diverse student group and to cultivate their ability of scheduling learning activities according to their own plans. Another factor being mentioned is the increasing number of students who participate in cross-border projects such as international exchange programmes, internships, conferences and competitions. As is shown in Figure 5.6, since 2005 there has been a rapid growth in the population of undergraduate students going abroad for months or years. In order to make sure that students could participate in international projects without disrupting their learning activities at Zhejiang University, the undergraduate curriculum thus needed to be made more flexible to allow students to schedule their timetable according to personal plans.

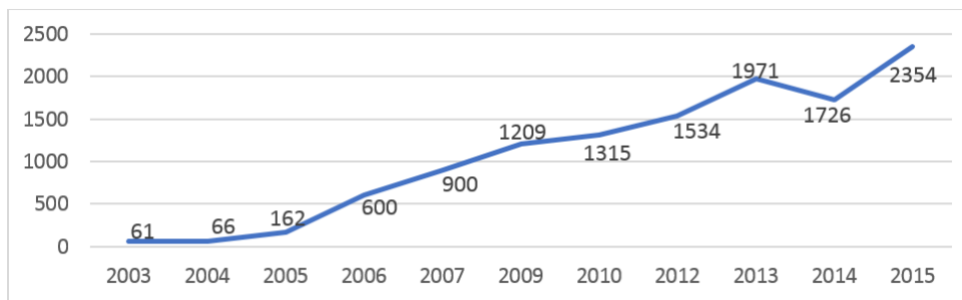


Figure 5. 6 The number of undergraduate students at Zhejiang University going abroad for international projects (including Hong Kong and Taiwan)

Third, the idea of *tongshi* education is further developed and articulated by dividing three sub-categories of *tongshi* courses and assigning different functions to each. The three sub-categories represent the three elements of *tongshi* education, i.e., (i) a general understanding of broad knowledge covering a wide subject range; (ii) a broadened knowledge foundation for specialism learning and interdisciplinarity; (iii) citizenship education.

***Tongshi* elective courses**, as described in the 2006 document quoted earlier, are to offer students general introductions to a wide range of subjects, which are expected to promote their understanding of human history, society, and the challenges of the global world. At Zhejiang University, *tongshi* elective courses are divided into six themes: history and culture; literature and art; economy and society; communication and leadership; science and research; technology and design. Students are required to take at least one or two courses from each theme. Such an approach is learnt from ‘the distribution requirement’ in many American universities (Aloi et al. 2003; Bourke et al. 2009). The distribution requirement, which consists of introductory courses from various academic departments, is one of the approaches of the American-style liberal education.

Why is the approach of a distribution requirement adopted at Zhejiang University, among other options which have been practised in other Western and Chinese universities, e.g., developing a set of core courses prescribed to every student? The underlying considerations were mentioned by policymakers in interview. First, it was argued that flexibility is preferred so that the large group students with diverse needs could choose topics according to

their own interest. In particular, students are encouraged to make connections between *tongshi* elective courses they select and specialism courses. Second, it was pointed out that such an approach could make sure that students develop a general understanding of all the major areas of modern knowledge. The policymaker A03 argued that *tongshi* education should prepare students for the future, and thus both traditional humanist classics and the latest developments in science and technology, emerging topics in human society and important attributes such as communication skills and entrepreneurship awareness, should have their places in *tongshi* education.

A03 (policymaker): ... I think some colleagues have overestimated the value of tradition and classics (in *tongshi* education), but fail to recognise that *tongshi* education today should be more open and updated ... *Tongshi* education is not about returning to the old tradition... Confucianism is not enough for our time, and it is a basic literacy for students to have a general understanding of the latest development in science and technologies ... Humanist classics, although being important, is not enough if we want to cultivate versatile and agile graduates who are competent in the fast-changing world today. *Tongshi* education should encourage creation, innovation and entrepreneurship...

(Interview, A03)

In Chapter 3 I have discussed the tension that there has been between tradition and modernity in the various definitions of *tongshi* education made by scholars. That is, some definitions of *tongshi* education emphasised learning the traditional wisdom in history, while some others focused more on studying the contemporary problems of modern society. From the conversations with policymakers at Zhejiang University, we can see that a 'modern' *tongshi* education has been preferred.

***Tongshi* lower-division courses** aim to contribute to a different aspect of *tongshi* education, i.e., to provide a broadened knowledge foundation for specialism learning. The name 'lower-division' means a lower-division of knowledge. That is, before concentrating on one narrowly specialised area, *tongshi* lower-division courses guide students to explore one of the broad knowledge domains: the humanities, social sciences, mathematical and natural sciences, informatics, engineering studies, agricultural studies, and medical studies (Zhejiang University President Office 2008).

For example, a student whose specialism learning will be focused on physics would need to take a set of *tongshi* lower-division courses within the domain of natural sciences, which include courses such as chemistry, biology and mathematics; while for a student who majors in law studies, he or she will need to complete a set of *tongshi* lower-division courses within the domain of the social sciences, which contains courses on sociology, economy, and business. The idea is that it would allow students to develop a broad overview of the domain which they will later explore in greater detail and depth. It is also expected to encourage students to make connections across disciplines (Zhejiang University Yearbook 2007, 2009).

The sub-category ***tongshi* compulsory courses** was renamed from the group of public compulsory courses in 2002, which includes four parts: political-ideological education; physical and military training; foreign languages; information and communication technology (ICT). *Tongshi* compulsory courses were not discussed in the 2006 document. The policymakers also failed to mention them until I, as the interviewer, brought up the topic. It seems that policymakers held a quite complicated attitude towards *tongshi* compulsory courses. On the one hand, there have always been strict regulations on these courses from the state in terms of content, teaching materials and assessments, as was mentioned in Section 5.3.1. Unlike the two other sub-categories of *tongshi* courses where institutional policymakers could practise their own educational agenda, very limited substantial change could be made by individual universities on *tongshi* compulsory courses.

On the other hand, by re-labelling this group as '*tongshi*', which makes it the largest sub-category of *tongshi* courses in terms of the percentage on students' timetables (in many other Chinese universities, this category is still labelled as 'public compulsory courses'), policymakers at Zhejiang University tried to make a connection between the government's idea of the necessary attributes of a qualified member of modern Chinese society and its 'own exploration of citizenship education' (Interviewee A01).

It should be noted that the term ‘citizenship education’ used by the interviewee A01 should be interpreted differently from the Western concept ‘citizenship education’, which is rooted in the idea of democracy and social justice (Arthur et al. 2008; Geijssel et al. 2012). In the interviewee A01’s accounts, more emphasis is placed on citizen’s social responsibility and the government’s discourses of the well-rounded development of students with socialist ideology, rather than the natural rights of a citizen in a democratic society. The difference is probably decided by the Chinese tradition which prioritises the individual’s responsibility to the society over rights, and was also shaped by China’s contemporary political-social system where political-ideological control has remained quite strong. It is, therefore, not difficult to understand the ambiguity and compromise in policymakers’ attitudes. In general, the policymakers expect teachers of these courses to play an important role in exploring ways of practising citizenship education in teaching and learning. A full list of the sub-groups of *tongshi* courses is offered in Appendix 5-B.

(2) Dividing the four-year curriculum into two phrases

The four-year undergraduate curriculum was divided into two phrases focusing on different categories of courses. During the first one or two years, students mainly take *tongshi* courses, while during the last two years, learning activities are concentrated on specialised and professional training through specialism courses (Zhejiang University, 2002). Free-elective courses could be taken at both stages.

Before 2006, a student starts to take specialism courses from the first semester as a systematic training, while at the same time attending a few non-specialism courses, i.e., public compulsory courses and public elective courses. In this case, these non-specialism courses are mainly regarded as a subordinate element of the curriculum. However, in the two-phrase structure built in 2006, *tongshi* education is highlighted in the curriculum as the main learning activities for the first one or two years. This also sends out the message that *tongshi* education sets the foundation for the undergraduate education rather than being irrelevant or less important.

To summarise, the changes in 2006 set the basic structure of the curriculum at Zhejiang University which has still been kept today. The changes have shown a great degree of borrowing from curriculum and teaching practice in American universities, e.g., introducing the distribution requirement approach to organise *tongshi* elective courses. Moreover, Zhejiang University has been advancing its experiments in *tongshi* education with its own strategies which have not been explored in other Chinese universities. For example, by putting the group of public compulsory courses into the category of *tongshi* education, policymakers at Zhejiang University tried to explore whether it would be possible to make a connection between the government's idea of a qualified member of modern Chinese society and the idea of citizenship education imbedded within liberal education.

5.3.4 2008: changes in organisational structure and management to enhance the curriculum reform

The year 2008 saw a series of considerable reform in administration, management and organisational structure at Zhejiang University which were launched to facilitate and enhance the curriculum changes made in 2006.

(1) Student enrolment and management

Zhejiang University changed its way of student enrolment and management in 2008. As is shown in Figure 5.7, before 2008, students were directly enrolled into specialism programmes, and specific academic schools and departments would take charge of students' management and support. From 2008 onwards, students have been first enrolled into lower-division programmes co-held by several departments, and management has been undertaken by the Qiushi Colleges. At the end of the first year students decide which specialism programme to concentrate on, and then join a specific school and department accordingly (Zhejiang University President Office 2009b). This change could be regarded as a follow-up to the two-phase division made in 2006. It continues to promote students' freedom in deciding what to learn because they now have one year to explore a wide range of subjects which is expected by the policymakers to inform their decision-making on choosing a major.

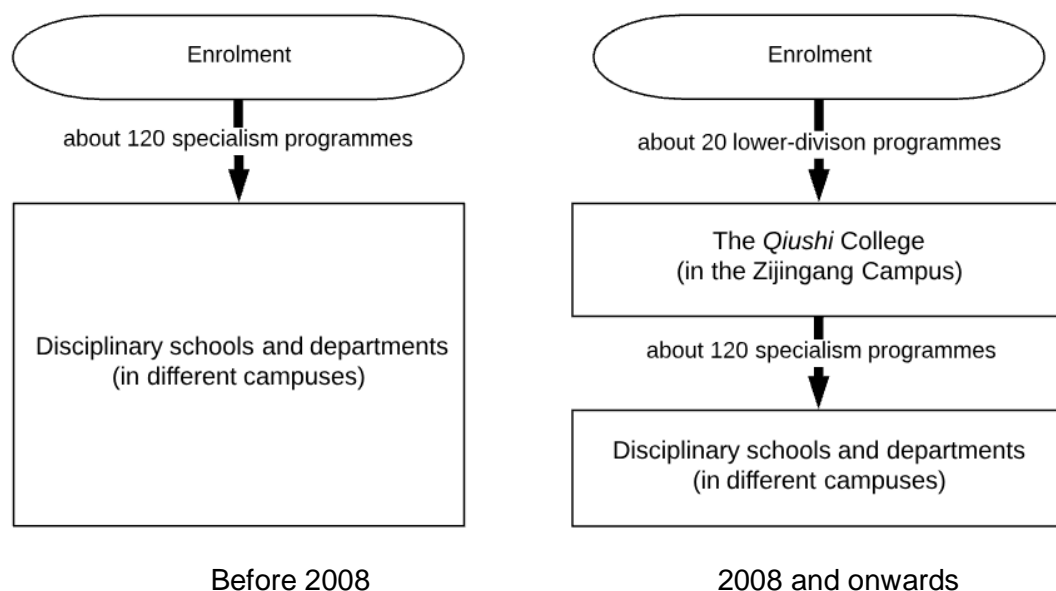


Figure 5. 7 The undergraduate education at Zhejiang University: before and after 2008

Because students are enrolled into lower-division programmes co-held by several departments, during the first year they do not belong to any specific academic department. In addition, as was mentioned at the beginning of this chapter, all the students stay in the central campus, the Zijingang Campus, during the first two years before three quarters of the students are transferred to other campuses where different academic departments are based. As a result, it became difficult for academic departments to take charge of student management and support, which they used to do before 2008. To solve this problem, the Qiushi College was established in 2008. Named after the motto of the University, it resembles the undergraduate colleges in some American universities such as Harvard College and Yale College. It take charge of student affairs for all undergraduate students, but only for two years rather than four years (Zhejiang University President Office 2009b).

(2) Residential academies: a strong political control

The Qiushi College contains four 'residential academies' on the Zijingang Campus for students to stay in their first two years. Students are allocated to

the academies according to their lower-division programmes⁴³ (Zhejiang University President Office 2009b). The division has resulted in reduced communication between students and academic staff members in the first two-year period of *tongshi* education, as was reported by students in this study. Meanwhile, it has been observed that communication is growing between students and the large group of political tutors.

As was discussed in Chapter 2, political tutors are staff of the University Committee of Chinese Communist Party (UCoCCP) and its subsidiary department Chinese Communist Youth League (CCYL), who undertake the task of promoting students' political conformity. In an interview, the political tutor PT02 reported that since the *tongshi* education they had been becoming increasingly involved in students' residence life and extra-curricular activities. They support students in all the issues of their campus life such as giving advice to students on study plans and timetables, organising extra-curriculum activities, managing residence life, caring for student mental health, and supporting students who are applying for financial assistance and scholarships. In this light, the *tongshi* education reform actually has led to the fact that political tutors are becoming more influential on students' understandings and experiences of *tongshi* education, which, probably implies a stronger political control on student experience.

(3) The Undergraduate Administrative Department: a centralised governance on curriculum policy

The Undergraduate Administrative Department (UAD) of Zhejiang University was established in 2008 to manage all the affairs of undergraduate education. Replacing the former and smaller Office of Academic Affairs (*jiaowuchu*), the Department has been more proactive and powerful in curriculum development, which used to be a task assigned to specific schools and academic

⁴³ Specifically, the Danqing Academy (arts and humanities, social sciences, and natural science); the Lantian Academy (engineering); the Baisha Academy (medicine and agriculture); and the Ziyunbifeng Academy (informatics). The academies are named after classical terms from traditional Chinese poetry, which are characterised by different colours. However, there is no link between the names and the nature of the disciplines.

departments. The Department has been playing a strong leadership role in implementing *tongshi* education, to promote coordination and communication between schools and departments. Using the information provided by the University on their official website (Zhejiang University 2017), I made the Figure 5.8 to illustrate the structure of the Department and how it is placed in the university administrative system.

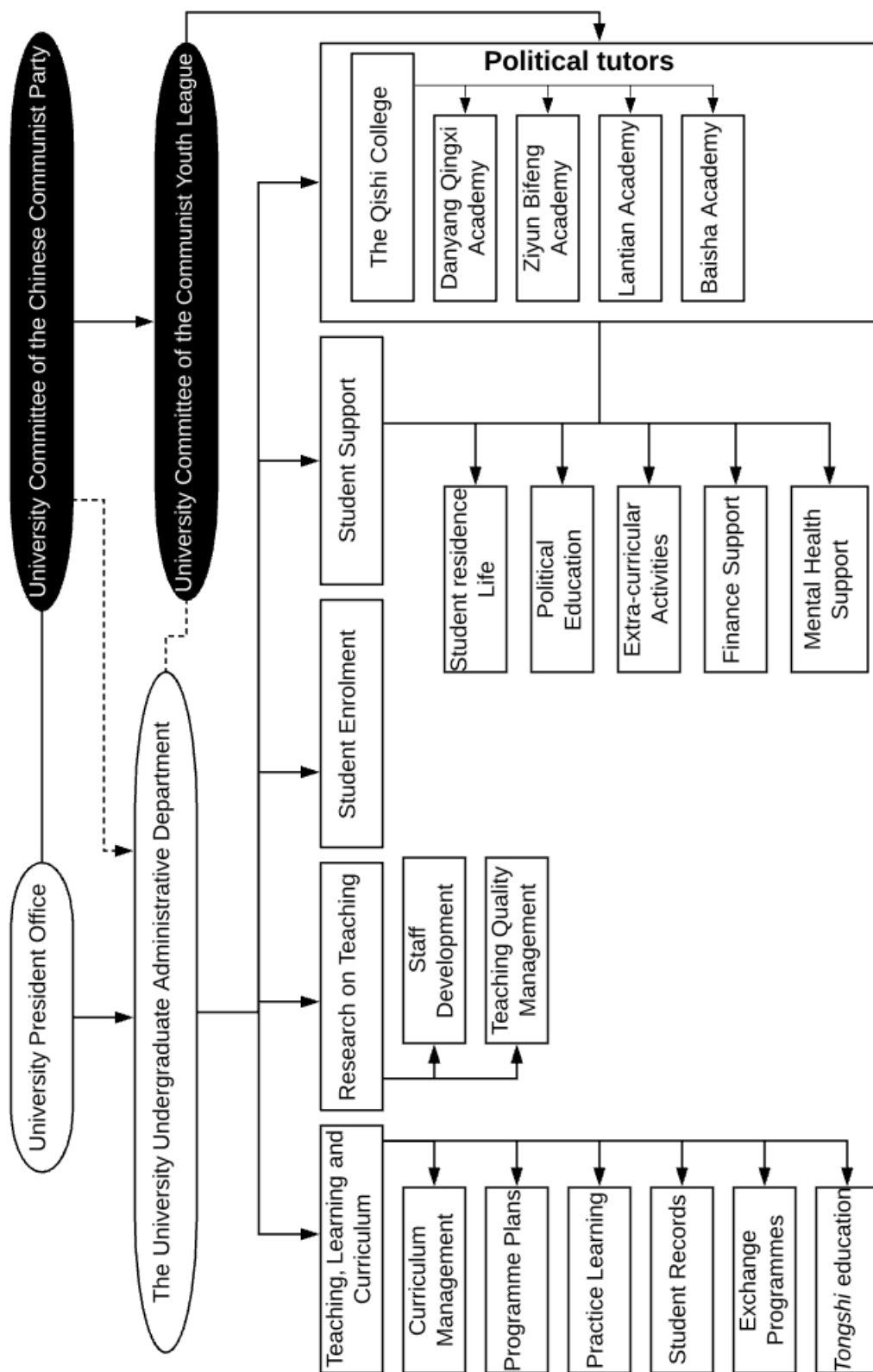


Figure 5. 8 The governance structure of undergraduate education

Notes: (1) The shapes in black background are political departments. (2) The arrowed lines indicate top-down management. (3) The dotted lines indicate indirect control. (4) The round boxes represent decision-making departments; and the square boxes represent implementing departments.

The Department is under the direct leadership of the President's Office, and the University Committee of the Chinese Communist Party, which work together as the highest decision-makers in the University.⁴⁴ It contains five offices managing affairs of undergraduate education, among which, **the Office of Teaching, Learning and Curriculum** is most relevant in the policy development and implementation of *tongshi* education (and other curriculum policies), and **the Office of Research on Teaching** works on how to improve the quality of teaching and learning – which Western universities would tend to describe as 'academic development' or 'educational development'. The two offices respond to inquiries from academic staff members and students, and work with administrative offices in disciplinary schools and departments to implement *tongshi* education (Zhejiang University 2017).

Moreover, **the Tongshi Education Centre** was established in 2010, by and within the Office of Teaching, Learning and Curriculum. It is not a formal administrative unit but a loose association of a group of academic and administrative staff members. The Centre serves mainly as a consulting agency for *tongshi* education. For example, it assesses academic staff members' applications for starting a new *tongshi* course, and helps the Office of Teaching, Learning and Curriculum to hold seminars, conferences and training sessions for teachers, within and cross- universities, to share and promote good teaching practice in *tongshi* education (Interview, A01).

The changes in 2006 and 2008 set the basic format of *tongshi* education at Zhejiang University which is still practised today. There have been several

⁴⁴ It should be noted that the both the University President and the General Secretary of the University Committee of Chinese Communist Party were directly appointed by the Ministry of Education (MOE). The length of their service term is also determined by the MOE. Usually the President is chosen from famous scholars, while the General Secretary might be a former government official. Criteria for the governmental nomination are not clear. It is also quite common that the nominee actually has no or very limited connection with the university before he or she starts leadership. In contrast, other senior administrators are usually those who have been studying or working in the university for quite a long time. The nominations of these administrators are made by the University Congress and the University Standing Committee of the Chinese Communist Party.

adjustments and follow-up policies in the following years. For example, in 2010 a small group of '*tongshi* core courses', as a part of *tongshi* elective courses, were developed to explore how to use small-group, student-lead seminars in *tongshi* courses to promote students' engagement and the quality of teaching and learning. However, these adjustments have not made any profound changes to the idea, structure or contents of *tongshi* education. Therefore, the four steps introduced in this larger section could be regarded as the main strategies of *tongshi* education practised at Zhejiang University till today.

The process of *tongshi* education reform at Zhejiang University reviewed in Section 5.3, shows how the new curriculum was gradually constructed to replace the old one, and how the organisational structure and administrative management were adjusted to support the curriculum changes. From the process we could also observe how the US-style liberal education was localised in the Chinese context, and how the complex idea of *tongshi* education was developed by policymakers.

5.4 Discussion: the rationale and process of the *tongshi* education reform at Zhejiang University

In this section, I will discuss the dynamics behind this complex process, which is constituted of two strands according to my observations of the *tongshi* education reform at Zhejiang University. First, the rationale of the *tongshi* education reform has been characterised by interweaving factors at global, national and institutional levels. Second, the process of policy development and implementation has been shaped by tensions among the administrative, political and academic groups at Zhejiang University.

5.4.1 Rationale of the *tongshi* education reform: the global-national-local dynamics

As has been discussed in Section 5.3.2, the impetus for *tongshi* education at Zhejiang University has come from a number of major changes in organisational structure and culture, government policies, and the increasing international connection. Behind the changes are the interweaving forces at

global, national and institutional levels, which generate what Marginson and Rhoades called 'simultaneity of flows' (2002, p.289). The global-national-institutional dynamics has been influencing *tongshi* education from the following two perspectives.

First, *tongshi* education as a new idea of undergraduate education has been shaped by the Chinese government's policies on higher education, which are underpinned by a complex attitude towards globalisation. On the one hand, international cooperation and the global market are welcomed and acknowledged as important for development in economy, technology and society. On the other hand, the communist government has always been suspicious of the ideological and political challenges from Western countries (Yang 2013).

With such an attitude, the government has been requiring Chinese universities, especially those being selected into national elite leagues (i.e., the 98/5 universities), to serve the immediate national demands on economic development and human resources in order to thrive in the global competition (Currie and Newson 1998), to revitalise its culture and ideology worldwide, and to promote students' employability in the fluid labour market (Bie and Yi, 2014). Therefore, *tongshi* education, while learning from the US-style liberal education, contains some seemingly irrelevant or even contrasting elements such as knowledge breadth and research excellence, and political conformity and critical thinking.

Second, *tongshi* education was initiated not only as an educational reform to change the curriculum, but also as an institutional strategy to promote the University's competency and reputation in the national and global higher education system. Starting from the national-leading Peking University, *tongshi* education has become a popular theme for curriculum reform within the Chinese national elite league of research-intensive universities. Zhejiang University, as a member of the elite league, has been learning from Peking University in its exploration of *tongshi* education, and is aiming at its own effective practice. Moreover, *tongshi* education is to transform the curriculum

at Chinese universities following the model of liberal education adopted in many American universities. Through this change the policymakers expect to smoothen the increasing interaction and cooperation between Zhejiang University and Western universities, and ultimately to contribute to its goal of becoming a world-class university which could compete cross-border for staff, students, research funding and prestige.

5.4.2 The process of policy development and implementation: tensions between administrative, political and academic groups

The process of policy development and implementation of *tongshi* education at Zhejiang University has been characterised by the tensions among three major groups: the administrative departments, the political departments, and the academic groups. To start with, I would like to discuss the important participants and their roles in the process of policy development and implementation. Figure 5.9 describes the process which I compiled from interviews with the policymakers and staff members.

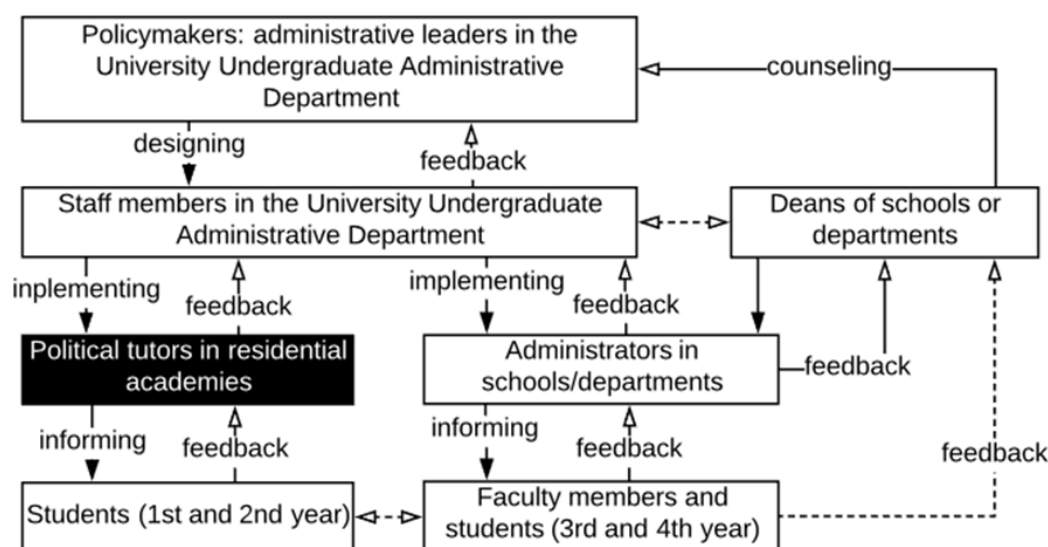


Figure 5. 9 The policy process of *tongshi* education at Zhejiang University

Notes: (1) A black arrow means a formal, top-down order; an open arrow means a bottom-up feedback or informal communication. (2) A dotted line means that the link is informal. (3) The shape in black background means that it represents a political group. (4) This figure visualises the policy process related to the curriculum changes. Other changes such as student enrolment or campus construction are not presented here because they are in the charge of specific administrative departments, which are less relevant to the topic of this research.

The *tongshi* education reform at Zhejiang University was initiated by some senior administrators, who were, as was mentioned earlier, inspired by the *tongshi* education reforms in a few other leading Chinese universities. Before the reform was launched, several meetings were arranged among the university senior administrators, where the deans of academic schools and departments were invited for consultancy. Formal documents were then produced by staff members of the University Undergraduate Administrative Department (which was called the Office of Academic Affairs before 2008) in accordance with the policymakers' design. The documents were passed on to the residential academies, and disciplinary schools and departments, with a series of meetings between the university and department levels for questions and explanations.

The political tutors in residential academies are responsible for informing all the first and second year students. The administrative offices in each school and department are responsible for the communication with academic staff members and third and fourth year students, with support from the deans. The feedback from the bottom up has usually been collected in both formal and informal forms. Formal feedback is made through course evaluation by students and regular institutional meetings. Informal feedback could be collected by casual and private conversations.

The tensions among different participating groups could be observed in the following three aspects. First, the reform was initiated and designed by administrative leaders at university level, while disciplinary departments and schools were less involved in the formal process of decision-making, but mainly playing the role of consultant and implementer. Being re-merged from four separate institutions into a major comprehensive university in 1998, the University leaders have been seeking to rebuild a sense of unity within the campus. In the *tongshi* education reform, the curriculum development, which used to be a task attributed to individual disciplinary departments, has been increasingly determined by the will of the leaders in the University Undergraduate Administrative Department. Therefore, the power of deciding the curriculum has been gradually transferred from departmental to central

level, so that the central administrative departments could exert a stronger control and push disciplinary departments to work for the same goal.

Second, the political departments, i.e., the University Committee of the Chinese Communist Party (UCoCCP) and the University Committee of the Chinese Communist Youth League (UCoCCYL), although not participating in the policy development of *tongshi* education, have exerted their influence through the group of political tutors in residential academies and students' associations. Given that political departments have been involved in Chinese universities' functioning at any level (Jiang and Li 2016), the agendas from the administrative and academic departments would inevitably be impacted by them. In this case, *tongshi* education, while being originally designed to promote knowledge breadth and curriculum flexibility by the administrative leaders, has been found to serve the purpose of cultivating political conformity in its implementation.

Third, most academic staff members and students did not participate in the process of policy development. As was described earlier, the policy documents are made by administrative leaders and then passed onto administrative offices. Academic staff members and students are only informed at the last moment. Particularly, the policymakers expressed expectation that academic staff members should explore *tongshi* education in their own teaching, yet very limited training has been provided to teachers on the meaning, content, and pedagogy of *tongshi* education. This finding reaffirms Liao's (2012) and Zhang's (2012) conclusions based on *tongshi* education at some other Chinese universities. Academic staff members, by deciding whether to teach *tongshi* courses or not, and what and how to teach, could express their understandings and thus recreate *tongshi* education in teaching practice. However, the limited participation of academic staff members in the process of policy development has caused problems in the teaching practice of *tongshi* education, as will be discussed in Chapter 6 and 7.

5.5 Summary

This chapter has reviewed the process of how *tongshi* education came into being at Zhejiang University. What are the reasons behind the *tongshi* education reform? What are the strategies and purposes of *tongshi* education planned by policymakers? Who are the key participants in policy development and implementation? What are the changes being made? These questions were answered drawing primarily on the evidence gathered from the institutional documents and interviews with policymakers. The reform at Zhejiang University, while introducing the idea and practice of Western liberal education, is also driven by the following factors: (i) the institutional aspiration of promoting a shared identity as a comprehensive university among its departments which had been previously separate; (ii) the national government's policy of building world-class universities; and (iii) the increasing international connection and cooperation on and off the campus. The *tongshi* education reform has changed not only the curriculum but also the organisational structure and management system. The process of policy development, in which academic staff members and students believed themselves to be little involved, is led by senior institutional administrators. The political authority, especially the University Committee of Chinese Communist Youth League (UCoCCYL), run by the Communist Party of China (CCP), has exerted important influences on *tongshi* education through its control on student extracurricular activities and residence life.

Chapter 6 Academic staff members' experiences and perceptions of *tongshi* education

6.1 Introduction

In Chapter 5, it has been discussed that academic staff members have been inadequately involved in the policy development of *tongshi* education at Zhejiang University. The policymakers expected academic staff members to explore *tongshi* education in teaching, yet limited training has been provided to teachers on the meaning, content, and pedagogy of *tongshi* education. In this chapter, I will explore academic staff members' teaching experiences and understandings of *tongshi* education. Based on interviews with twenty-one academic staff members, the following questions will be explored. Among academic staff members at Zhejiang University, who is more likely to teach *tongshi* courses? What is his or her motivation? How do academic staff members perceive the impact of the *tongshi* education reform on their academic work? How do academic staff members understand the idea of *tongshi* education and apply it to teaching? What are the challenges in teaching practice?

In Section 6.2, based on the information from academic staff members who were teaching *tongshi* courses at Zhejiang University between September 2014 and January 2015 (the autumn-winter semester), I will examine the make-up of the group in terms of academic rank, disciplinary background and gender, to illustrate who is more likely, and who is less likely, to teach *tongshi* courses. The reasons behind academic staff members' participation and their motivations will be discussed. Teachers' perceptions of how the *tongshi* education reform has influenced their academic work will also be reported. In Section 6.3, a phenomenographic analysis is conducted on academic staff members' understandings of the idea of *tongshi* education to construct a comprehensive conception. I will first introduce the basic principles of

phenomenography and how they are used in my analysis.⁴⁵ Four qualitatively different conceptions of *tongshi* education identified from interviews will then be elaborated and compared. In Section 6.4, I will compare the four conceptions of *tongshi* education, to discuss how these conceptions respond to the policymakers' design and contribute to the existing discussion of the meaning of *tongshi* education.

6.2 Academic staff members' participation in *tongshi* education: who and why

According to the policymaker A01, around one fifth of all academic staff members teach *tongshi* courses at Zhejiang University every year, who constituted a relatively stable group. In this section, I will discuss how academic staff members are recruited to teach for *tongshi* education, who are more likely to be involved, and reasons and motivations for their participation. This provides an essential background for us to understand academic staff members' understandings and practices of *tongshi* education in the later parts of this chapter.

It should be noted that, apart from the formal curriculum, academic staff members sometimes are also invited to other activities of *tongshi* education such as public lectures held by student associations and other university departments. Although I endeavoured to gather such evidence, I recognised that it should be interpreted with care, as the informality of such activity meant that it was difficult to know that what I had access to was truly representative. Therefore, data and analysis of teachers' experience of *tongshi* education are mainly focused on formal *tongshi* courses, while other activities and issues are mentioned when evidence emerged in interviews.

⁴⁵ A general introduction to phenomenography has been made in Chapter 4. In this part, I will focus on how the approach is used in data analysis and presentation in my study.

6.2.1 How teachers are recruited for *tongshi* courses

As has been discussed in Chapter 5, there are three sub-categories of *tongshi* courses, i.e., *tongshi* compulsory courses set according to national standards to cover political-ideological education, physical education, English and Information and Communications Technology (ICT) education; *tongshi* lower-division courses to provide a broadened introduction to specialism education; and *tongshi* elective courses for students' general understanding of knowledge of a wide subject range. According to institutional policies, teachers are recruited following different approaches for the three sub-categories due to their differentiated functions and contents (Zhejiang University Personnel Department 2014). Table 6.1 summarises how the three groups of teachers are recruited from different departments.

Table 6. 1 Teacher recruitment for *tongshi* courses at Zhejiang University

Sub-categories of <i>tongshi</i> course		Ways of recruitment
<i>Tongshi</i> compulsory course	Political-ideological education	Mandatory task. Teaching certain <i>tongshi</i> courses is a mandatory requirement for academic positions in the following departments: Department of Marxism Studies ⁴⁶ (political education and military education); Department of Physical Education and Training (physical education); English Department (English education); Teaching Centre for Basic Computer Skills (ICT education) ⁴⁷ . Only a few senior professors are exempted from the task.
	Physical and military education ⁴⁸	
	English and ICT education	
<i>Tongshi</i> lower-division course		Departmental decision. Teachers for <i>tongshi</i> lower-division courses are selected by each academic department through meetings and negotiations.
<i>Tongshi</i> elective course		Personal application. Teachers from any department or school may apply to start a <i>tongshi</i> elective course with permission from the University Undergraduate Administrative Department.

From Table 6.1, we can see that for *tongshi* elective courses, there is a greater degree of freedom for teachers to decide whether to teach and what to teach, because the specific courses are not decided by the University or departments in advance. For the other two sub-categories, the teachers are required or selected to teach specific courses which are prescribed in advance by departments, the university and the government. The different approaches to teacher recruitment have resulted in three very different groups of teachers for the three sub-categories of *tongshi* courses, as will be discussed in the following section.

⁴⁶ Like most Chinese universities, Zhejiang University has a Department of Marxism Studies as a teaching and research centre for political and ideological education, in response to the national policy of political-ideological control. Apart from developing and delivering courses in political-ideological education and military education, the Department of Marxism Studies also conducts relevant research.

⁴⁷ The Teaching Centre for Basic Computer Skills was built in response to the national policy of improving college students' computer skills.

⁴⁸ Military training tutors are usually serving soldiers who are invited to campuses during the military training, thus they are not included in the analysis in this chapter.

6.2.2 Who teaches *tongshi* courses: gender, disciplinary background and academic rank

What are the features of the group of teachers for *tongshi* compulsory courses? Who are selected by departments to teach *tongshi* lower-division courses? What kinds of teachers are more willing to teach *tongshi* elective courses? What are the differences between the three different groups of teachers for *tongshi* education? These questions will be discussed by examining the list of teachers for *tongshi* courses at Zhejiang University. Because the University did not keep a complete record of the academic staff members who taught *tongshi* courses since the start of the reform, I decided to collect information from academic staff members teaching *tongshi* courses during my fieldwork, i.e., the autumn and winter semester in 2014-2015 (September 2014 - January 2015), which was accessible on the official website of the Undergraduate Administrative Department of Zhejiang University.⁴⁹ The senior administrator A01 confirmed that the group of teachers for *tongshi* education had been generally stable while continuing to grow, thus the list I collected could be a relatively reliable example to illustrate the composition of the whole group.

To start with, I will first give the information on all academic staff members of Zhejiang University as background. Table 6.2 summarises the information on all full-time academic staff members at Zhejiang University in 2015, according to what was released in the University yearbook (Zhejiang University President Office 2017).

⁴⁹ http://jwbinfosys.zju.edu.cn/jsmain_kkqk.htm?xh=0017570. Retrieved on 15th November 2015

Table 6. 2 Fulltime academic staff members at Zhejiang University in 2015

Disciplinary areas	Professor	Associate professor	Lecturer	Total
Arts and humanities	119	152	132	403
Social sciences	210	253	128	591
Mathematical and natural sciences	282	220	81	583
Engineering studies	606	638	189	1433
Agricultural studies	114	79	28	221
Medical studies	221	109	40	370
Total	1552	1451	598	3601
Among which, female	233	445	241	919

Table 6.2 examines the make-up of academic staff members from three aspects: academic rank⁵⁰, disciplinary background, and gender. In terms of **academic rank**, 43.1% of all the academic staff members were professors, 40.3% were associate professors, and 16.6% were lecturers. In terms of **disciplinary background**, around 39.8% of the staff members are from engineering studies, 32.6% from mathematical and natural sciences (including mathematics, natural sciences, agricultural studies and medical studies), 16.4% from social sciences, and 11.2% from arts and humanities. In terms of **gender**, female members made up only 25.5% of the whole group, and this percentage was even lower in the professorial group—14.4% of professors were female.⁵¹

Information on the teachers who were teaching *tongshi* courses during the autumn-winter semester in 2014-2015 at Zhejiang University is summarised in Table 6.3.

⁵⁰ There are generally three types of academic rank in Zhejiang University, from senior to junior: professor, associate professor (senior lecturer), and lecturer.

⁵¹ The proportion of female staff members of Zhejiang University was much lower compared to the national average. According to the statistic by the Ministry of Education of China (2016), females made up 48.62% of the full-time academic staff members of Chinese higher education institution in 2015. The gender imbalance at Zhejiang University might be related to the fact that the University has larger departments on sciences and engineering where more male academic staff members are recruited. Very little discussion could be found on the gender imbalance at Zhejiang University. It was also not mentioned by any interviewee in this study.

Table 6. 3 Teachers for *tongshi* courses at Zhejiang University 2014-2015

Categories of <i>tongshi</i> courses	Professor	Associate professor	Lecturer	Total	Female
<i>Tongshi</i> compulsory courses	14	33	59	106	58
Political education	5	10	10	25	9
Physical and military education	2	10	24	36	18
English and ICT education	7	13	25	45	31
<i>Tongshi</i> lower-division courses	33	65	33	131	40
Arts and humanities	4	5	8	17	5
Social sciences	3	8	10	21	8
Mathematical and natural sciences	14	19	8	41	10
Engineering and technology	12	33	7	52	17
<i>Tongshi</i> elective courses	79	56	17	152	35
Arts and humanities	30	16	9	55	20
Social sciences	10	18	5	33	6
Mathematical and natural sciences	29	14	1	44	2
Engineering studies	10	8	2	20	5
Total	126	154	109	389	133

As we can see from Table 6.3, out of the total population of 3601, 389 academic staff members were teaching *tongshi* courses in the autumn-winter semester 2014-2015. It should be noted that the number 389 covers only one semester. According to what I was told by the administrator A01, another group of teachers, roughly the same amount and of the same composition, would be teaching different *tongshi* courses during the other semester, the spring-summer semester (from March to July). Therefore, about 750-800 academic staff members would teach in the whole year, making it one fifth of the total population. I will now take a closer look at the three sub-categories from three aspects: gender, disciplinary background and academic rank.

(1) Gender

34.2% of the teachers for *tongshi* courses in 2014-2015 were female. Given that overall there were only 25.5% female teachers at Zhejiang University, the

portion of female teachers who taught *tongshi* courses was relatively high, particularly in areas such as English and physical education (*tongshi* compulsory course) and to a lesser extent, *tongshi* elective courses on arts and humanities, probably due to the higher rate of female members in those departments. According to some existing studies, in higher education, women appear to be more positively oriented towards teaching while men towards research (e.g., Poole et al. 1997; Zhao 2007). This gender pattern of academic work might also contribute to the relatively higher involvement of female staff members in teaching *tongshi* courses. That said, it should be acknowledged that *tongshi* education at Zhejiang University is dominated by male teachers in general.

(2) Disciplinary backgrounds

Teachers for *tongshi* compulsory courses are recruited from departments in humanities, social sciences, and informatics according to the prescribed contents; and teachers for *tongshi* lower-division courses are selected from all the main academic departments. Therefore, the disciplinary composition of these two groups is determined by the planned curriculum. By contrast, the disciplinary make-up of the sub-category of *tongshi* elective courses, consisting of six parts, has shown some discrepancy from what was expected by the policymakers because academic staff members are given the freedom to decide whether to teach or not (Zhejiang University 2006).

Table 6.4 lists the disciplinary backgrounds of teachers for *tongshi* elective courses, from which we can see that academic staff members from arts and humanities and natural sciences are more involved in *tongshi* elective courses, while teachers from engineering and social sciences are less involved.

Table 6. 4 Disciplinary distribution of teachers for *tongshi* elective course in 2014-2015

<i>Tongshi</i> elective courses: six themes	Subject	Profesor	Associate professor	Lecturer	Total
History and culture	Humanities and arts	30	16	9	55 (36.2%)
Literature and art					
Economy and society	Social sciences	10	18	5	33 (21.7%)
Communication and leadership					
Science and research	Mathematical and natural sciences	29	14	1	44 (28.9%)
Technology and design	Engineering studies	10	8	2	20 (13.2%)
Total		79	56	17	152

Table 6.4 lists the six themes of *tongshi* elective courses and the disciplinary backgrounds of teachers for each theme (the two columns on the left). Academic staff members from the departments of arts and humanities contribute to two of the six themes: *history and culture*, and *literature and art*; teachers from the departments of social sciences contribute to two themes: *economy and society*, and *communication and leadership*; teachers from the departments of natural sciences contribute to one theme: *science and research*; and teachers from the departments of engineering studies contribute to one theme: *technology and design*.

Given that all the students are required to take one or two courses from each theme, ideally there should be roughly an equal number of courses under each theme for students to choose from. Therefore, the disciplinary composition of teachers for *tongshi* elective courses should be: humanities and arts 33.3%, social science 33.3%, mathematical and natural sciences 16.7%, and engineering studies 16.7%. However, the actual distribution shown in Table 6.4 (right column) is uneven. There were more teachers from natural sciences, and arts and humanities, but an inadequate number of teachers from engineering studies and social sciences. It seems that there has been a particular shortage of teachers from social sciences, i.e., among the 152 teachers for *tongshi* elective courses, only 33 teachers were from social

sciences and they needed to fill two themes of the six; ideally there should have been around 50 to meet the average level.

I did not find direct evidence from interviews or documents (or other existing studies) which explains the relatively low involvement of academic staff members from social sciences and engineering studies (the percentage of professors in these two areas is also relatively low). One possible explanation is that academic staff members in these two areas are more research-oriented and are less interested in teaching *tongshi* courses, while in the natural sciences, and humanities and arts, there are more teaching-oriented academic staff members. Another reason might be that the idea of *tongshi* education is more appealing to academic staff members from disciplines of natural sciences, humanities and arts. The disciplinary imbalance implies that different academic staff members and departments probably respond to the *tongshi* education reform differently.

This difference has also impacted on students' learning experiences of *tongshi* education, because students have fewer options for *tongshi* elective courses in social sciences and engineering studies. In fact, a few student interviewees did complain that there were not enough options to choose from for the theme *communication and leadership*.

S2g03 (2nd-year, informatics): I have to say it's too difficult to choose a course in *communication and leadership* ... There are only very limited options and it has been difficult to get enrolled because there were so many students competing to join the same course ...

(Group interview 02 with students)

None of the existing studies has investigated the disciplinary imbalance in other universities. It is not clear to me whether this is a particular situation at Zhejiang University or a common phenomenon. I believe it is worth investigation in future studies to see if the disciplinary imbalance is a general feature of *tongshi* education at different universities.

(3) Academic rank

Within the 389 teachers for *tongshi* courses, 126 were professors (32.4%), 154 were associate professors (39.6%), and 109 were lecturers (28.0%).

Compared to the institutional composition, i.e., 43.1% professors, 40.3% associate professors, and 16.6% lecturers, in general, lecturers were more involved in teaching *tongshi* courses, and professors were least involved. However, there is a considerable difference between the three sub-categories, as is shown in Figure 6.1.

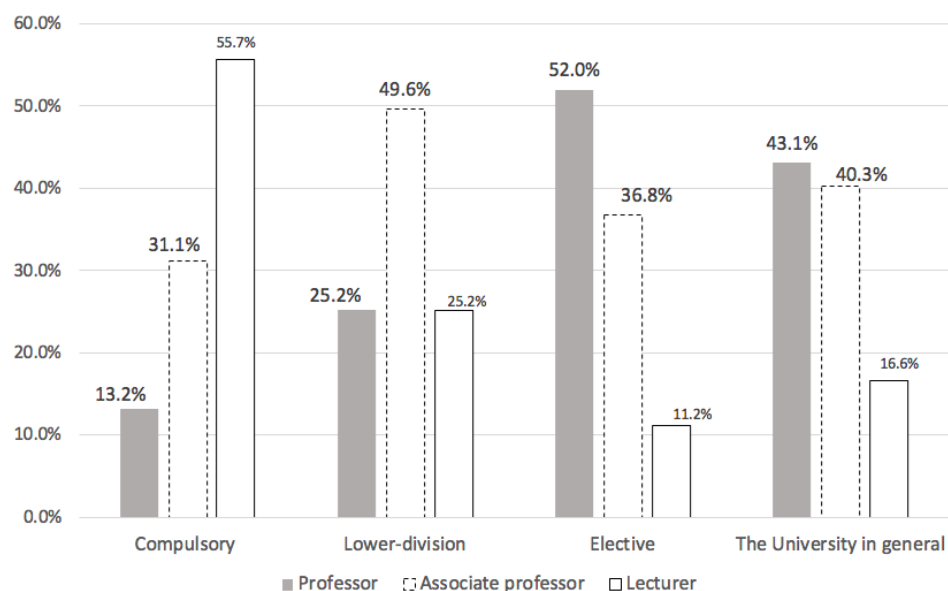


Figure 6. 1 Teachers for *tongshi* courses at Zhejiang University 2014- 2015: academic rank

The sub-category ***tongshi* compulsory courses** was characterised by a high ratio of lecturers (55.7%) and a low ratio of professors (13.2%). This is mainly because the departments in which these teachers are based – the Department of Physical Education and Training (physical education), the Department of Marxism Studies (political Education and military education), the English Department (English languages) and the Teaching Centre for Basic Computer

Skills (Computer skills) – have higher proportions of lecturers and lower proportions of professors.⁵²

For ***tongshi* lower-division courses**, associate professors were the largest group (49.6%). Lecturers and professors shared the same percentage (25.2%). However, given that there is a larger group of professors than lecturers at Zhejiang University, professors were the least involved in *tongshi* lower-division courses in this case. It seems that departments are less likely to send senior professors to teach these introductory-level courses. Zhejiang University divides its academic staff members into three groups according to the academic staff members' research performance, i.e., teaching oriented, teaching-and-research oriented, and research oriented (Zhejiang University Personnel Department 2014). I found that departments and schools have been more likely to send teaching-oriented and teaching-and-research-oriented staff members to teach *tongshi* lower-division courses, who are less likely to be promoted to be professors. As was pointed out by the interviewee TP10,

TP10 (professor, chemistry, *tongshi* lower-division course): Many professors prefer to teach specialism courses—if they actually teach—which are more related with their expertise, and some might think *tongshi* lower-division courses are too basic and general ...

(Interview, FP07)

The interviewee TP10, a professor who offered to teach a *tongshi* lower-division course, argued that *tongshi* lower-division courses, playing the role of introducing students to a certain discipline, are the foundation of

⁵² Specifically, in the Department of Physical Education and Training, there were 65 staff members in 2015, among which 5 were professors (7.7%), 30 were associate professors (46.2%), and 30 were lecturers (46.2%). In the Department of Marxism Studies, among the total 50 of its staff members, 10 were professors (20.0%), 22 associate professors (44.0%), and 18 lecturers (36.0%). In the English Department, among the 114 staff members, 18 were professors (15.8%), 32 associate professors (28.1%), and 64 were lecturers (56.1%). In the Teaching Centre for Basic Computer Skills (Computer skills), among 25 of all its staff members, 4 were professors (16%), 7 were associate professors (28%), and 14 were lecturers (64%). According to the institutional policy, academic promotion is based more on the academic staff member's research performance than teaching experience at Zhejiang University Zhejiang University Personnel Department. 2014. "Zhejiang University Faculty Handbook [in Chinese][Zhejiang Daxue Jiaoshi Shouce]." Hangzhou: Zhejiang University Press.. The above departments are concentrated on teaching thus the proportion of professors is relatively low.

undergraduate education and further education, thus should not be underestimated by professors.

TP10 (professor, chemistry, *tongshi* lower-division course): ...I think they (*tongshi* lower-division courses) are very important. In many cases they decide how far students could go in specialism learning and research... Therefore they should be taught by best teachers ...

(Interview, TP10)

Professors were most involved in ***tongshi* elective courses** at a ratio of 52.0% while lecturers were the least at 11.2%. One important reason for the high participation of professors is that the University encourages senior academic staff members to teach *tongshi* elective courses and makes it increasingly difficult for junior academic staff members to start a new *tongshi* elective course, with the assumption that senior professors are more experienced and capable of developing and delivering good-quality courses. As was mentioned by the interviewee TP11,

TP11 (professor, physics, *tongshi* lower-division course): I noticed that at the beginning of the (*tongshi* education) reform, it was quite easy to get approved to start new *tongshi* courses because the University needed to encourage more teachers to participate... But now ... the University prefers experienced teachers who are also excellent in research to develop outstanding courses, not just any kind of *tongshi* (elective) courses... Therefore, it's difficult to apply to start a new *tongshi* course, particularly for junior teachers.

(Interview, TP11)

The University has been pushing senior professors to teach *tongshi* courses through measurements such as financial rewards and honours titles. It should also be acknowledged, though, that at interview many professors reported an internal motivation to teach *tongshi* elective courses, i.e., their appreciation of the value and importance of *tongshi* education.

6.2.3 What changes are resulted from the *tongshi* education reform on academic work: academic staff members' perceptions

When responding to the interview question 'how has the *tongshi* education reform changed your teaching experiences', teachers of the three sub-categories gave different answers. Most teachers for *tongshi* compulsory courses and *tongshi* lower-division courses interviewed in my study reported

that teaching *tongshi* courses was a part of their everyday work, a mandatory task required by the University or departments which saw very few substantial changes in teaching content or method. For example,

TL14 (lecturer, political-ideological education, *tongshi* compulsory course): I had been teaching this course before the [*tongshi* education] reform although in past it was not labelled as '*tongshi*' ... To be very honest, I don't think the nature of this course and the way of how to teach it have been changed ...

(Interview, TL14)

A few interviewees, in contrast, believed that the reform showed the University's efforts to highlight the importance of high-quality undergraduate education at the research-intensive university. For example,

TP11 (professor, physics, *tongshi* lower-division course): For me, it's quite encouraging to see the reform taking place. As a staff member who has been mainly focus on teaching, I sometimes feel my work was mistakenly regarded as less important by the University because it's about the most basic contents and has less direct links to advanced research... The reform has brought more attention and discussion back to teaching.

(Interview, TP11)

Teachers of *tongshi* elective courses reported that the *tongshi* education reform has created an opportunity for the University and academic staff members to reconsider what and how to teach, and has provided more freedom for teachers to develop and deliver courses which otherwise could not be included in the formal curriculum. Some teachers pointed out that *tongshi* education brings new challenges for teachers to reflect on, and update their ideas and skills of, teaching. For example,

TP03 (professor, literature study, *tongshi* elective course): Teaching a *tongshi* course could be very different from teaching a specialism course... [In a *tongshi* course] students are from various disciplinary backgrounds and would frequently bring questions and discussions which I did not anticipate ... Through teaching *tongshi* courses I have been learning to become more open and deal with unexpected questions in class. It also makes me to think more about what students need for their life rather than for specialism development ...

(Interview, TP03)

Specifically, it was mentioned that the *tongshi* education reform has encouraged teachers to learn 'effective methods of student-centred teaching in the

Western universities' (Interviewee TL04), such as adopting small-size seminars to supplement large-size lectures and promoting student-led discussion. Moreover, some teachers mentioned that they had more chances to share their research with students by developing *tongshi* elective courses based on their own research topics. To quote from interviewee, TA02:

TA02 (associated professor, psychology, *tongshi* elective course): ... One of my research interests is university students' mental health. According to my studies, many students are suffering from mental problems without proper knowledge of how to deal with them ... I think it's wonderful that I have the chance to share some findings with students through this course. That is the main reason why I designed this course [as a *tongshi* elective course].

Qijuan: ... So it is a new course that you hadn't taught before.

TA02: Yes ... I had been teaching a course on quantitative methodologies (a specialism course) in my school, where I used some of my research as examples. But that course is about methodology and is open to students within my department. ... Therefore, I found it was a very good opportunity to develop this course on this particular topic which students across the whole campus can join ... And I am very motivated because students have made positive feedback.

(Interview, TA02)

I want to conclude Section 6.2 by highlighting two findings from the examination of the make-up of teachers for *tongshi* courses at Zhejiang University. First, because of the differentiated functions and contents designed by policymakers, there have been three different groups of teachers for the three sub-categories of *tongshi* courses, particularly in terms of academic rank and disciplinary area. The three groups of teachers reported different motivations for teaching *tongshi* courses and different impacts of the *tongshi* education on their academic work. These differences, which have not been examined in existing studies, are important for us to understand academic staff members' understandings and practices of *tongshi* education. Second, there are two particular kinds of imbalance in teachers' participation, i.e., (i) senior academic staff members participate more in *tongshi* elective courses while less in *tongshi* lower-division courses; (ii) teachers from social sciences and engineering studies are less involved. Policymakers and researchers should examine whether such an imbalance can be found in other universities and what are the implications for the student experience.

6.3 Four conceptions of *tongshi* education by academic staff members

In this part, I will explore how academic staff members understand the idea of *tongshi* education. The phenomenographic approach is adopted to interpret and analyse data collected from interviews, where academic staff members were asked to explain their perceptions in detail, based on their experiences of teaching.

6.3.1 A phenomenographic approach to the conceptions of *tongshi* education

As was introduced in Chapter 4, phenomenography explores people's understandings of the world, based on the idea that 'each phenomenon, concept, or principle can be understood in a limited number of qualitatively different ways' (Marton 1986). Different from psychological studies which usually focus on the process of how people perceive and conceptualise the world (the act of perception or conceptualisation), phenomenography is more interested in the content of perception or conceptualisation. Particularly, an effort is made to uncover all the understandings people have of specific phenomena, to sort them into conceptual categories. While being originally developed and applied in psychological studies to explore how students learn a specific concept or subject and to help uncover conditions that facilitate the transition from one way of thinking to a qualitatively 'better' perception of reality, phenomenography has also been widely used by sociologists and anthropologists, and in policy studies, to learn why certain perceptions are more prevalent in one group than in another (Marton 1981, 1986). In the context of my study the phenomenon under investigation was *tongshi* education, where I explored academic staff members' understandings of the concept of *tongshi* education.

According to phenomenography, the experience of understanding a (new) phenomenon or a concept consists of two intertwined aspects: **a referential (or meaningful) aspect**: i.e. a particular meaning of an individual object; and **a structural aspect**: i.e. the combination of features discerned and focused

upon by the subject (Marton and Booth 1997; Marton and Pong 2005; Svensson 1997). The structural aspect is twofold: discernment of the whole from the context on the one hand (external horizon), and discernment of the parts and their relationships within the whole on the other (internal horizon) (Marton 1981). Marton and Booth (1997) gave the example of seeing a motionless deer among the dark trees of the night woods to elaborate the two aspects.

To see it [the deer] at all we have to discern it from the surrounding trees and bushes; we have to see its contours, its outline, the limits that distinguish it from what surrounds it. We have to see, at least partially, where it starts and where it ends. But seeing its contours as contours and the contours of a deer implies that we have already identified it as a deer standing there, which is exactly where the enigma of what it takes to experience something in some context lies. On the one hand, in order to see something as *something* (the particular configuration in the woods as a deer, in the instance, and not as a truck or a UFO) we have to discern that something from its environment. But on the other hand, in order to discern it from its environment we have to see it as some particular thing, or in some other words assign it a meaning. Structure presupposes meaning, and at the same time meaning presupposes structure. The two aspects, meaning and structure, are dialectically intertwined and occur simultaneously when we experience something.

(Marton and Booth , 1997, pp. 86-87)

Following this framework, I outline the referential and structural aspects of the conceptions of *tongshi* education in Figure 6.2, according to interviews with academic staff members at Zhejiang University.

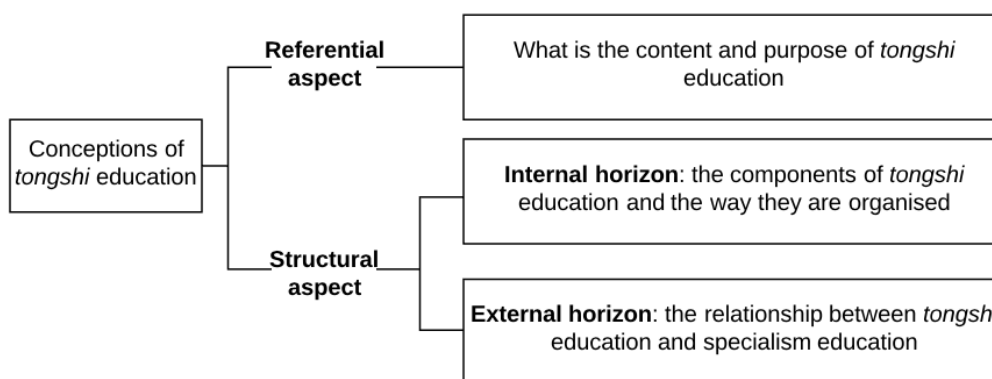


Figure 6. 2 The referential and structural aspects of the conceptions of *tongshi* education

The referential aspect of *tongshi* education describes purposes and contents of *tongshi* education, which also implies different ideas of university education

in terms of what kind of knowledge should be taught and what kind of graduate attributes should be developed. The four conceptions of *tongshi* education focus on four different orientations in the referential aspect.

- **Knowledge breadth:** *tongshi* education is to promote students' knowledge breadth through developing their general understanding of knowledge of a wide subject range.
- **Citizenship education:** *tongshi* education is to promote students' critical understanding of the local and global society and a sense of social responsibility.
- **Crossdisciplinarity and interdisciplinarity:** *tongshi* education is to promote student academic development through cross-disciplinary and interdisciplinary learning.
- **Liberal development:** *tongshi* education highlights the student's liberal development and promotion of intellectual virtues.

The structural aspect describes how *tongshi* education is organised in the university curriculum. The internal horizon examines the components of *tongshi* education and the relationship between these components. The external horizon examines how *tongshi* education is arranged in the university curriculum, particularly the relationship between *tongshi* education and specialism education.

In existing studies, scholars argued that *tongshi* education, as an integral part of the undergraduate curriculum, should be connected with specialism education (e.g., Chen et al. 2008; Pang 2011; Xu and Ji 2004). However, they failed to elaborate how the connection could be developed in real teaching practice. In this research, the four conceptions of *tongshi* education derived from the data present four different types of relationship between *tongshi* education and specialism education, which I labelled as: 'subsidiary', 'complementary', 'supplementary' and 'foundational'. I worked out the following four figures (Figure 6.3-6.6) to visualise and depict these four relationships, to contribute to a better understanding of how *tongshi* education could change the structure of the undergraduate curriculum.

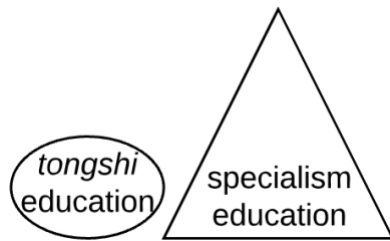


Figure 6. 3 Conception 1: Subsidiary

(1) Subsidiary

Specialism education is held to be the main part of university education (hence bigger in size). *Tongshi* education is not related to specialism education. The triangle shape 'Δ' with the ending point on top indicates that specialism education is a process of becoming increasingly specialised, while *tongshi* education is a circle '○' meaning that its elements lack a cumulative effect.

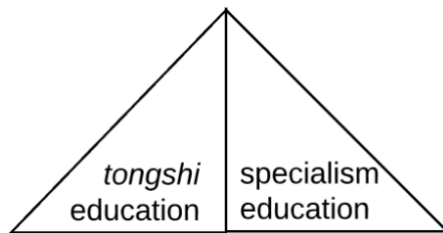


Figure 6. 4 Conception 2: Complementary

(2) Complementary

Tongshi education represented by 'Δ' shows the process of developing students' social awareness and responsibility. The two shapes of *tongshi* education and specialism education constitute a triangle, meaning that *tongshi* education and specialism education make a complete university education. That is, *tongshi* education is an essential part, without which the university education is incomplete.

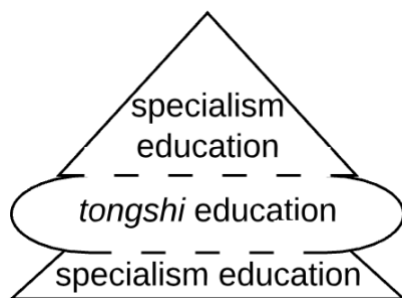


Figure 6. 5 Conception 3: Supplementary

(3) Supplementary

Tongshi education is placed between the two shapes of specialism education, and the connecting part is drawn in dotted lines. It means that *tongshi* education is perceived to be integrated with specialism education and to reinforce it.

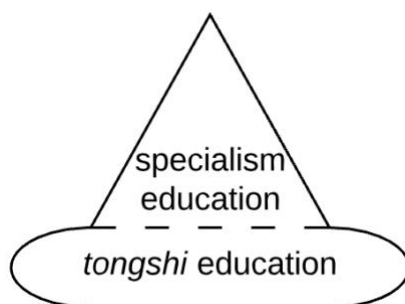


Figure 6. 6 Conception 4: Foundational

(4) Foundational

The shape of *tongshi* education is placed below the shape of specialism education to show that *tongshi* education serves as a foundation for specialism education. Like in Conception 3, the dotted line between the two shapes indicates that *tongshi* education and specialism education are integrated.

Table 6.5 below summarises the referential and structural aspects of the four conceptions of *tongshi* education derived from the data in this research. The four conceptions identified from interviews with academic staff members at Zhejiang University reveal different possibilities and orientations, which are beyond the description of ideas of *tongshi* education in existing studies and policy documents. The four conceptions offer different answers to the following questions: (i) what are the aim and content of *tongshi* education; (ii) why *tongshi* education is important; (iii) how to teach *tongshi* education; and (iv) what the challenges are in teaching.

A detailed description of each conception will be given in the following sections from 6.3.2 to 6.3.5. A comparison between the four conceptions will then be made, followed by a discussion on how the four conceptions contribute to our understanding of the idea of *tongshi* education in Chinese universities.

Table 6. 5 The four conceptions of *tongshi* education by academic staff members at Zhejiang University

		Structural aspect			
		Subsidiary	Complementary	Supplementary	Foundational
Referential aspect	Knowledge breadth	Conception 1			
	Citizenship education		Conception 2		
	Cross-disciplinarity & inter-disciplinarity			Conception 3	
	Liberal development				Conception 4

6.3.2 Conception 1: *tongshi* education is subsidiary to specialism education and is aimed at students' general understanding of a wide range of academic disciplines.

Some academic staff members argued that *tongshi* education is to promote students' knowledge breadth through a collection of learning activities encompassing a wide subject range. *Tongshi* education is regarded as subsidiary to specialism education in the university curriculum. Specialism education is aimed at students' professional development through a

systematic and extensive training, while *tongshi* education provides a general introduction to a multidisciplinary collection of subjects, topics and methodologies, which is believed to cultivate adaptive and versatile students. To quote from the interviewee TP17 as an example,

TP17 (professor, engineering studies, *tongshi* elective course): To me, the meaning of '*tongshi*' is quite straightforward as 'general knowledge'. That is, university students should develop a general understanding of all the major areas of knowledge, instead of being limited to specialism education.

Qijuan: ... In your opinion, what is the relationship between *tongshi* education and specialism education?

TP17: ... The main task (for the university) is specialism, but it is also important for students to have a basic idea of other disciplinary areas, which I think is beneficial to their capacities of thinking, reasoning, relating and judging ... Students don't need to be experts on all these areas, but should be able to understand the basic concepts, theories and ways of reasoning and practice...

(Interview, TP17)

According to the teachers' descriptions, *tongshi* education mainly takes the form of introductory lectures. Some challenges and problems in teaching have been mentioned at interview. First, some teachers reported that a large number of students have been less motivated and less engaged in the classes of *tongshi* courses. Second, most *tongshi* courses are of fewer and smaller modules compared to specialism courses. Therefore, some teachers argued it was difficult to convey what they wanted to cover within the limited time. To quote from the interviewee TP16,

TP16 (professor, genetics, *tongshi* elective course): A *tongshi* course is different from a specialism course. Students have to work hard on a specialism course because it is closely related to their future career, while *tongshi* courses are regarded as less important. I noticed that they might soon lose interest if they feel the content is too difficult, too abstract, or boring. Moreover, students in the class [of a *tongshi* course] have very different knowledge backgrounds. These circumstances pose challenges in selecting and organising teaching contents to fit the expectation of most students in these very large classes.

(Interview, TP16)

As a result, it has been pointed out that, in many cases, *tongshi* courses only generate superficial learning and fail to contribute to student development. To solve the problem, some interviewees highlighted that a connection should be

drawn between the teaching content and students' real-life experiences to promote effective teaching. For example,

TP016: For a *tongshi* course, I think it is important to make it very clear to students about how they can apply what they learn from classes into real life. I find that students would be more engaged when they realised what they learn is relevant ... In my *tongshi* course [about genetics], students are guided to observe a large number of real-life cases, such as observing plants in the campus ...

(Interview, TP16)

Some other teachers also argued that students should be taught to appreciate the value of *tongshi* education which might manifest itself in a less direct way from that of specialism education, yet still be vital to students' development. For example,

TA15 (associate professor, media study, *tongshi* lower-division course): ... Students always ask why they need to take *tongshi* courses which are not part of their specialised training. I think it is an important part of teachers' work to convince them of the value of *tongshi* education... I usually tell my students, that *tongshi* education can be very useful, say, when they meet new people from different backgrounds, join a conversation, attend some social activities, and read a piece of news... It is just a different kind of usefulness from that of specialism education. If the student makes proper efforts [on *tongshi* courses] they will find what they learn from the classroom can be applied to their daily life, study and work, and will have long-term influences...

(Interview, TA15)

This conception of *tongshi* education was concluded from some interviewees who were teachers for *tongshi* elective courses, and less from teachers for *tongshi* lower-division course (i.e., TA15) and *tongshi* compulsory courses (i.e., TL04). It is, therefore, not surprising that Conception 1 corresponds to the policymakers' design of *tongshi* elective courses, i.e., academic staff members from different disciplinary departments are required to develop *tongshi* elective courses and students can choose from a wide range of options according to their interests.

6.3.3 Conception 2: *tongshi* education is complementary to specialism education and focuses on citizenship education.

Some academic staff members believe that *tongshi* education is to promote students' understandings of human history, culture and society, and to develop a sense of responsibility for building a better world. *Tongshi* education is held to be an essential element of university education for every student because it provides a very important aspect which specialism education usually fails to cover. Three different approaches to practising this idea of *tongshi* education were described by three interviewees, covering all the three sub-categories of *tongshi* courses.

The first approach is mainly drawn from the conversation with the interviewee TP18, who was a professor in sociology and was known in the campus for his involvement in social activism⁵³. He argued that citizenship education should be an important element of *tongshi* education, and implied the need to learn from American universities in this light.

⁵³ It should be noted that the teacher did not use the term 'social activism' to describe himself in the interview. The impression was mainly drawn from online information, comments by students, and my own experience of attending his class as an undergraduate student in 2009. For example, according to the page on the biggest online encyclopaedia in China—*Baidu Baike* (similar to Wikipedia), the interviewee FP10 was deprived of the qualification for teaching for a few years by the Ministry of Education and was asked to study Marxism as a kind of political-ideological education because he was believed to support the Tiananmen Square Violent Protest in 1989. For the purpose of confidentiality, I have not given all the details here.

TP18 (professor, sociology, *tongshi* lower-division course): Through the *tongshi* education reform, students have been given more space to explore what they want to learn. But I think it is more important for universities and teachers to think about what to teach and what attributes we want students to attain... I think citizenship education should be an important part of *tongshi* education, if not the most important one. Citizenship education has become a sort of vacuum in our education which needs to be filled... There is a piece of news I read before about a university candidate in Ningxia (a city in Northwest China) who failed in *gaokao* (the Standard National Higher Education Entrance Examination in China) but was later enrolled into Harvard University with a scholarship. Why? ... Because the boy was enthusiastic about, and had been spending lots of efforts on, a charity campaign, which gave him huge advantage [when making the application for Harvard University] ... I think it's time for us to learn from these universities abroad to highlight citizenship education. Our universities claim that they are to foster social leaders who can change the world. But it's impossible to achieve this goal if our students are taught in a way to only care about examinations and material benefits of education...

(Interview, TP18)

In particular, the interviewee TP 18 argued that the University should, as a start, encourage teachers to develop a set of courses conveying basic human values and cultural diversity which go beyond the dominating communist doctrines in the current curriculum.

TP18: We have the set of [*tongshi* compulsory] courses on political-ideological education, but those are mainly about students' political conformity. I don't think students are taught how to be modern citizens through these courses... I think we should develop more courses on other cultures and values in the world. In this way students would be guided to learn the universal values behind the diverse cultures. For example, there could be a course on 'love' which introduces the Christian tradition. It is, of course, not religious education, but to help students to understand a different tradition and to appreciate the wisdom and humanity underlying the tradition... I think this is the base for global citizenship.

(Interview, TP18)

The second approach suggested by some interviewees is more subtle. Instead of developing a particular set of courses for 'citizenship education' which explicitly impart certain values, they believe it is possible to develop students' civic knowledge and social responsibility by highlighting the ethical and social complexity behind academic knowledge, and the potential of academic knowledge to contribute to solutions to contemporary problems. In this way,

citizenship education could be imbedded in the process of introducing disciplinary knowledge. To quote from the interviewee TP13 as an example:

TP13 (professor, history, *tongshi* elective courses): As a history teacher, I have been teaching [a *tongshi* course] on the topic of the 18th-century French intellectuals... On the one hand, I wanted my students to learn some basic approaches of history research and to search and interpret materials as a historian. On the other hand, the selected topics of this course is to encourage students to reflect on our current society and their roles as well-educated intellectuals... Although we are learning the historical issues in the 18th-century France which are seemingly irrelevant (to the current Chinese society), these issues can shed lights on lots of issues in our current society... For example, while discussing how the group of intellectuals criticised and changed the 18th-century French society, they [students] will be thinking about their responsibility to our society... In this way, we take history as a mirror of the current society.

(Interview, TP13)

The interviewee FP13 also pointed out that such an idea of *tongshi* education could be practised not only through the classical subjects in humanities and social sciences, but also through other academic disciplines in science and technology.

TP13: I would say that many subjects can contribute to *tongshi* education – even those from sciences and technologies... The key point is that the teacher should emphasise the social relevance of the discipline... Let me make it clearer. I was not saying that any course can be called a *tongshi* course. A *tongshi* course is essentially different from a specialism course even though they are based on the same discipline. A specialism course focuses on the student's academic development and specialised training, while a *tongshi* course should promote the student's critical understanding of our society.

(Interview, TP13)

The third approach is developed from the interviewee TL14, a lecturer of a *tongshi* compulsory course on political-ideological education. The teacher had been enjoying a good reputation among students for his informative and enlightening teaching, according to what I was told by some interviewees (students and student-tutors). The interviewee TL14 explained how he tried to develop students' critical understanding of history in spite of the political-ideological control.

TL14 (lecturer, political-ideological education, *tongshi* compulsory course): Usually these courses [*tongshi* compulsory courses on political-ideological education] are regarded as a tool for propaganda, and it is very true. However, I think there is always space for me, as a teacher, to lead the class in a way which I think is meaningful to students... First of all, instead of repeating the arguments in the provided textbooks, I would include various materials and evidences and let the student to do their own argument-making. These arguments or evidences are usually new to many students because they are not introduced in textbooks. In this way students would be able to review the discourses in the textbooks critically and learn to make arguments with concrete and reliable evidences ... And they would realise that there is scholarship in this area rather than mere propaganda... Another strategy is to organise reading and discussion seminars, as well as research projects. For example, last semester we did a series of small studies on oral history to interview some elderly soldiers about their experiences during the Sino-Vietnamese War [in 1979]. Students were very well-engaged to explore these untold stories...'

(Interview, TL14)

In Chapter 5 it was mentioned that the policymakers at Zhejiang University expected academic staff members to explore citizenship education in teaching. The three approaches suggested here, which have been practised to different degrees, have proved that citizenship education is possible within the Chinese context.

6.3.4 Conception 3: *tongshi* education supplements specialism education through cross-disciplinary and interdisciplinary learning.

To some academic staff members, *tongshi* education is to supplement specialism education and to promote students' academic development through cross-disciplinary and interdisciplinary learning. The term **cross-disciplinary learning** highlights the idea that students should be guided to examine and compare the theoretical and experimental approaches, valid uses, and limitations of different academic disciplines, thus developing a comprehensive and critical understanding of knowledge. The term **interdisciplinary learning** emphasises that students should be encouraged to explore potential connections and integration between what they learn from *tongshi* courses and specialism education by addressing new research questions and trying new research approaches. Three different approaches

were developed from interviews with three informants (TP12, TP05, TP06), who were teaching *tongshi* elective courses or *tongshi* lower-division courses.

First, the interviewee TP12, a professor in mathematics, who described himself as ‘a mathematician and poet’, argued that *tongshi* education should help students to recognise the irreplaceable values and complementary relationship of the two major domains of knowledge, i.e., the humanities and natural sciences, and to correct the misunderstanding that academic disciplines are essentially isolated from each other.

TP12 (professor, mathematics, *tongshi* elective course): I find it’s quite common that students and teachers from (the background of) science devalue arts and humanities subjects while students from arts and humanities lack a basic understanding of science... Probably because of their previous educational experience, they never think critically about the departmental division of knowledge... I think *tongshi* education should help students to recognise that various academic subjects are dynamic human creations with the same intellectual root. Different subjects offer different perspectives to observe the world and all their value should be appreciated.

(Interview, TP12)

The interviewee TP12 then described a *tongshi* elective course he developed on the history of mathematics, which he believed to combine mathematics with history, philosophy and literature.

TP12: Usually [in the mathematics class] students are trained to solve sophisticated problems without knowing how the theorems were created in history and how they influence our culture and society... I wanted to develop a course to show students that mathematics is an integral part of our life and culture. In this course I selected the life stories of a group of legendary mathematicians who were also philosophers and important cultural figures, as a way to delineate the history of mathematics as a part of the complex historical, cultural and social evolution. I also introduced some classical mathematical questions which changed our way of thinking in a fundamental manner. I wanted my students to appreciate the harmonious beauty underlying the forms of how the questions were raised and solved...

(Interview, TP12)

Second, the interviewee TP05, a professor in life science who was holding a *tongshi* elective course reported that he used the *tongshi* course as a platform where students from various disciplinary backgrounds were encouraged to use their specialism knowledge to analyse selected topics.

TP05 (professor, life science, *tongshi* elective course): I think it is important to connect *tongshi* education with specialism education. [For the *tongshi* course I've been teaching] I purposefully selected materials and cases where students could make connection with their major... For instance, once we were discussing about epidemic control, so I used the case of the SARS outbreak in 2003⁵⁴, which involves lots of aspects... I first gave a lecture [which introduced the case from the perspective of life science], then the student was encouraged to analyse the case from the disciplinary perspective of his or her specialism background. I was very glad to see that different disciplines were brought together to contribute to the discussion, such as medical study, management, media study, computer studies, and international relationship.

Qijuan: In this way the student participates in the *tongshi* class as a 'specialist' of his or her own disciplinary area.

TP05: Indeed. The fact that students [of a *tongshi* course] are from different academic backgrounds is not a challenge, but an opportunity to bring together different disciplines on one topic... For students, it is mind-broadening because they are learning from each other... I think this strategy could promote learning outcomes of both specialism education and *tongshi* education.

(Interview, TP05)

Third, the interviewee TP06, who was a professor in informatics and teaching a *tongshi* lower-division course, argued that *tongshi* education should create possibilities for interdisciplinary learning and research which generates new knowledge.

TP06 (professor, informatics, *tongshi* lower-division course): ...To me, 'tong' means 'to connect'. So I think *tongshi* education should connect different academic disciplines and break existing disciplinary boundaries.... For example, a colleague of mine holds a *tongshi* elective course on automatic control, where she asks students to do innovative projects. There was a student from [the background of] Chinese medicine designed an automatic controlling system applied to Chinese medicine production... I think this is a very inspiring case. More courses like this should be developed and added to students' timetable as an essential element.

(Interview, TP06)

Conception 3 emphasises the connections and integration between *tongshi* education and specialism education. According to the interviewees'

⁵⁴ According to the World Health Organization (WHO) (2005), severe acute respiratory syndrome (SARS) is an infectious disease caused by the SARS coronavirus. There was an outbreak of SARS between November 2002 and July 2003, which caused an eventual 8,098 cases, resulting in 774 deaths reported in 37 countries, with the majority of cases in China. Despite taking some action to control it, the Chinese government was criticised by the international community for the lack of openness and delays in controlling the epidemic.

descriptions, I found that there is an underlying assumption that students should have some specialism education before *tongshi* education because it was suggested that the student should be encouraged to bring the questions and knowledge from his or her specialism education into the classroom of *tongshi* education. In this sense, Conception 3 implies a different curriculum structure from the existing one at Zhejiang University, where, as was introduced in Chapter 5, most *tongshi* courses are required to be taken by students before they start specialism education.

6.3.5 Conception 4: *tongshi* education is the foundation of specialism education and highlights the student's liberal development and promotion of intellectual virtues.

Some teachers argued that *tongshi* education should be aimed at the student's liberal development and promotion of intellectual virtues such as critical thinking, curiosity, open-mindedness and integrity. It was held that *tongshi* education is the foundational part of the undergraduate curriculum to empower the student, through developing the important intellectual virtues, to become an effective and self-reflective learner. Conception 4 is mainly deduced from the interviews with six academic staff members who were teaching a *tongshi* elective course or *tongshi* lower-division course (TP19, TP11, TP10, TP03, TP09, TP20). Three of them were from the subjects of humanities (i.e., Chinese philosophy, Western philosophy, and literature study), and the other three from the natural sciences (i.e., mathematics, physics, and chemistry). These interviewees, not surprisingly, highlighted the importance of humanities, natural sciences and social sciences in *tongshi* education because these subjects are focused on inquiry into the human condition.

The interviewee TP09, a professor in Western philosophy, argued that *tongshi* education should learn from liberal education which he believed originates in Ancient Greece and Rome. He pointed out that *tongshi* education is of particular importance to Chinese students who have been used to their learning being driven by examinations.

TP09 (professor, philosophy, *tongshi* elective course): ...Usually people regard students who finally enrolled into good universities as being educationally successful. But according to my observation, many of them have never experienced the pure joy of learning. It is a shame that many intellectually capable students only perceive the graduate diploma as a tool for a well-paid work... I think there is a lot we can learn from the tradition of liberal education to help students recognise the intrinsic value of knowledge... It should be the principal goal of our education to cultivate self-reflective learners...

(Interview, TP09)

The interviewee TP20, a professor in Chinese philosophy, shared a similar viewpoint to TP09 yet explained the idea from a different perspective: the meanings of the two ideograms '*tong*' and '*shi*'.

TP20 (professor, philosophy, *tongshi* elective course): 'In the term '*tongshi*', '*tong*' means 'unblocked' ... and '*shi*' as having the real understanding power of discrimination. Some people interpreted '*tongshi*' as a general knowledge of wide subject range, but I prefer another explanation, i.e., the status of being able to understand fundamental principles. In this sense, the goal of *tongshi* education at the highest level is to cultivate '*tongren*', to use the traditional term.⁵⁵

(Interview, TP20)

The interviewee TP20 also commented that *tongshi* education should promote the student's critical understanding of specialism education.

TP20: *Tongshi* education should help students to understand that specialism training is only one part of higher education, which should not limit his or her life choice or potential. Instead, higher learning is a process of transformation during which the meaning of life is explored and constructed.

(Interview, TP20)

When describing how to teach a *tongshi* course, the three interviewees from the subjects of humanities highlighted the importance of intensive reading of classical texts which was believed to exert important influence on the student's way of thinking, experiencing and behaving. In particular, it was emphasised that the study of texts is to promote reflection and wisdom, rather than

⁵⁵ The concept '*tongren*'—a person of the quality of *tong*—was discussed in the Section 3.2.2. To put it briefly, '*tongren*' refers to the person who has developed a thorough and consistent understanding of the fundamental principles regarding the human condition.

technical inquiries into a limited set of special problems. For example, the interviewee TP03 pointed out,

TP03 (professor, literature study, *tongshi* elective course): In the *tongshi* class, it's more important for the student to find out how his or her personal experience corresponds the text, than attain specific skills for literacy criticism ... In the *tongshi* class, my role as a teacher is to promote three forms of conversation: the conversation between the student and the writer through the form of reading; the conversation between the teacher and the student through lecturing, and the conversation between different students through discussion. In this process the student is expected to not only promote understanding of the piece of classical writing, but also the abilities of expressing his or her opinions and listening to others to conduct meaningful conversations.

(Interview, TP03)

The other three interviewees from the natural sciences emphasised the importance of cultivating critical thinking. For example, the interviewee TP10 argued that *tongshi* course should be taught by teachers who are critical thinkers to inspire the student to think critically about the most foundational concepts and theories of the subject.

TP10 (professor, chemistry, *tongshi* lower-division course): I always tell my students that those who accept whatever is on the textbook without a second thought are the worst learners. Before thinking about the practical applications of scientific knowledge, I think the student should be guided to think critically about and raise doubts over the basic theories of the subject, despite how widely they have been accepted. This is the principal value of a *tongshi* course like this—not just to give a general introduction... Therefore, *tongshi* courses need to be taught by teachers who are themselves critical and creative thinkers.

(Interview, TP10)

In addition, interviewees TP19 and TP11 mentioned that they sometimes used metaphor and analogy to link academic knowledge with life lessons for students. For example,

TP19 (professor, mathematics, *tongshi* lower-division course): I always find it fascinating to see how a student can be changed after the four-year journey, not just in terms of academic development, but also in the overall personality. Therefore, we as teachers should be more careful about the impact we might have on students... A small trick that can be very useful when being used properly is to make connections between the academic knowledge with various issues of student's life. For example, I used to make jingles which summarise the features of different types of mathematical functions which can also be interpreted as tips for students' life. It is kind of funny meanwhile leaves deep impression.

(Interview, TP19)

The interviewees holding Conception 4 emphasised that the content of *tongshi* education should be carefully selected from the subjects of humanities, social sciences and natural sciences with careful organisation, to promote the student's understanding of the human condition. Some of them criticised the fact that most of the existing *tongshi* courses at Zhejiang University were not carefully selected, which failed to promote the student's development of intellectual virtues and critical self-reflection.

To summarise, the four conceptions show different orientations to *tongshi* education. Among the twenty-one interviews in my study, seven teachers held Conception 1, four held Conception 2, three held Conception 3, and seven held Conception 4 (a more detailed discussion can be found in the following section, 6.4). It should be noted that some interviewees mentioned elements of more than one conception. For example, the interviewee TP05 (professor, life science, *tongshi* elective course), while arguing that *tongshi* education should promote cross-disciplinary learning (Conception 3), also suggested that students' understanding of society could be promoted by bringing public and social affairs related to the development of academic knowledge (Conception 2). However, in most cases individual interviewees can principally be associated with one particular conception, despite the fact that they might mention elements of other conceptions. The interviewee TP05, therefore, is identified as a holder of Conception 3, because his description was mainly focused on crossdisciplinarity rather than students' citizenship.

6.4 A discussion on the conceptions of *tongshi* education

In this section I will compare the four conceptions of *tongshi* education, to discuss how these conceptions respond to the policymakers' design, and to contribute to the existing discussion of the meaning of *tongshi* education by scholars.

6.4.1 Comparing teachers' conceptions with the policymakers' design

As was discussed in Chapter 5, the policymakers designed three sub-categories of *tongshi* courses to implement three functions of *tongshi* education. i.e., *tongshi* elective courses are aimed at students' general understanding of knowledge of a wide subject range, and in particular a critical understanding of history, society and the global world; *tongshi* lower-division courses are to contribute to a broadened knowledge base for specialism education; and *tongshi* compulsory courses are to explore citizenship education within the context of strong political-ideological control from the government (Zhejiang University Office of Academic Affairs 2006). Moreover, different groups of teachers are teaching the three sub-categories of *tongshi* courses, as was found in Section 6.2. Therefore, it is necessary to ask the following two questions. First, do teachers of the three sub-categories of *tongshi* courses report different conceptions of *tongshi* education? Second, what is the relationship between the three functions of *tongshi* education and the four conceptions by academic staff members?

(1) Do teachers of the three sub-categories of *tongshi* courses report different conceptions of *tongshi* education?

In Table 6.6, I group the interviewed academic staff members by (i) which conception of *tongshi* education they reported and (ii) which sub-category of *tongshi* courses they taught.

Table 6. 6 The four conceptions of *tongshi* education and their holders

Conceptions of <i>tongshi</i> education	Interviewees
Conception 1 (7 interviewees)	<i>Tongshi</i> compulsory courses: TL07, TP01 <i>Tongshi</i> lower-division courses: TP21, TA15 <i>Tongshi</i> elective courses: TP16, TP17, TA02
Conception 2 (4 interviewees)	<i>Tongshi</i> compulsory courses: TL14, TL08 <i>Tongshi</i> lower-division courses: TP18 <i>Tongshi</i> elective courses: TP13
Conception 3 (3 interviewees)	<i>Tongshi</i> lower-division courses: TP06 <i>Tongshi</i> elective courses: TP12, TP05
Conception 4 (7 interviewees)	<i>Tongshi</i> compulsory courses: TL04 <i>Tongshi</i> lower-division courses: TP19, TP11, TP10 <i>Tongshi</i> elective courses: TP03, TP09, TP20

From table 6.6 we can find that, in general, academic staff members' conceptions of *tongshi* education are not determined by which sub-category of *tongshi* courses they are teaching, although in some cases there might be a certain degree of impact. Conception 1, 2 and 4 could be found from academic staff members of all the three sub-categories, while interviewees who taught *tongshi* compulsory courses were less likely to report Conception 3, probably because the planned function of this sub-category was less about students' academic development. It should be noted that the above conclusion is based on a relatively small sample in this study. To find patterns that are more accurate, we would need a much larger number of participants in future studies.

(2) What is the relationship between the three sub-categories of *tongshi* courses and the four conceptions by academic staff members

According to the policymakers' plan, there would probably be three conceptions of *tongshi* education held by the groups of teachers for the three sub-categories of *tongshi* courses. However, comparing the three functions of *tongshi* education and the four conceptions of *tongshi* education, I found that there is a certain degree of mismatch between the two systems. As is shown in Figure 6.7, academic staff members' conceptions, while responding positively to the policymakers' design, have revealed different and richer meanings of *tongshi* education.

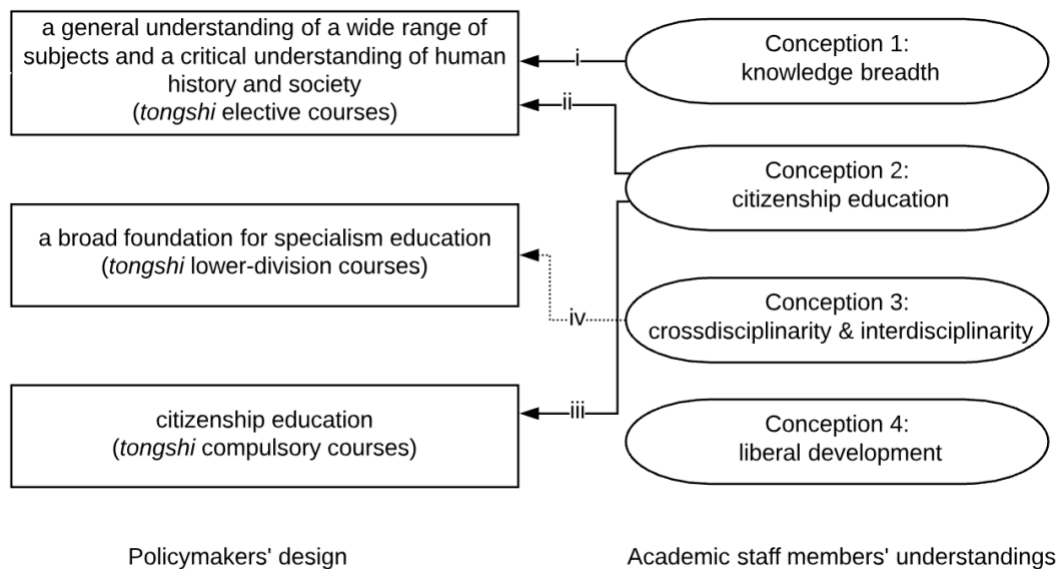


Figure 6. 7 Sub-categories of *tongshi* courses and conceptions of *tongshi* education

As is indicated by the **line i** in Figure 6.7, Conception 1 responds positively to the goals of *tongshi* elective courses planned by policymakers, emphasising students' knowledge breadth through learning a wide range of subjects. It should be noted, however, that as well as teachers of *tongshi* elective courses, some teachers who were teaching lower-division courses or *tongshi* compulsory courses also reported Conception 1 (see Table 6.6), while they would have been expected to contribute to the other two functions according to policymakers' design. The **line ii** and **line iii** indicate that Conception 2 responds to the policymakers' design of *tongshi* elective courses and *tongshi* compulsory courses, although a few teachers for *tongshi* lower-division courses (e.g., FP10) also held this conception. The line **iv** indicates that Conception 3 is mainly associated with the policymakers' design of *tongshi* lower-division courses. However, the connection is drawn as a dotted line because there is a difference between the two. *Tongshi* lower-division courses planned by the policy makers are introduction-level courses to lay a broadened foundation for specialism education which might generate interdisciplinarity and crossdisciplinarity, while Conception 3 emphasises developing *tongshi* courses directly containing aspects of interdisciplinarity and crossdisciplinarity. Conception 4, highlighting students' liberal development, is mainly promoted by academic staff members but not included in the policymakers' agenda.

To summarise, academic staff members' conceptions reveal the meanings of *tongshi* education beyond the policymakers' design. Individual teachers' understandings and practices of *tongshi* education do not entirely match the policymakers' assignment of educational aims to the sub-categories of *tongshi* courses. Meanwhile, most teacher interviewees described *tongshi* education from their own teaching experience and failed to see the multiple functions of *tongshi* education made by the policymakers.

6.4.2 Reasons behind the different conceptions

What are the reasons behind academic staff members' different conceptions of *tongshi* education, given that they are not entirely determined by the division of the three sub-categories? Based on the interviews with teachers, I found the differences are explicable in terms of the following factors: (i) the interviewee's knowledge of general education and liberal education; (ii) the multiple meanings of the term '*tongshi*' itself; and (iii) the teacher's personal character and experiences such as interests and educational background.

First, some interviewees' conceptualisation of *tongshi* education is influenced by their knowledge of 'general education' and 'liberal education' (e.g., TP12, TP18, FL13, TP09). These interviewees had gained some knowledge of general education and liberal education through their educational, working and visiting experiences in Western universities, which shaped their understandings of *tongshi* education. For example, the interviewee FL13, a lecturer in English literature who gained her PhD degree at an American University, made a comparison between a liberal education programme of that University with *tongshi* education at Zhejiang University. The interviewee FP16, a professor in Western philosophy, also made a reference to liberal education and its origins in the philosophers and educators of Ancient Greece and Rome. It should be noted that these interviewees did not share the same understanding as each other of the Western concepts. Therefore, even though they made references to liberal education and general education, their conceptions of *tongshi* education remained different.

At the time I conducted the interviews at Zhejiang University, the number of teachers who mentioned general education and liberal education at interview was relatively small in the sample, which may well indicate that most academic staff members had very limited knowledge or experience of teaching and learning in Western universities. However, it can be envisaged that in future, with the increasing number of graduates returning from Western universities to be recruited in Chinese universities, the influence of Western general education and liberal education might grow much stronger.

Second, I observed that a few academic staff members referred to literal meanings of the term '*tongshi*' when explaining their understanding of *tongshi* education (e.g., TP06, TP17, and TP20). As was introduced in Chapter 3 (Section 3.2.2), the two constituting ideograms '*tong*' and '*shi*' of the term '*tongshi*' have a range of meanings, which make it possible for readers to interpret the term in different ways. Table 6.7 summarises the different choices by three interviewees in my study and how the different choices lead to different conceptions of '*tongshi*'.

Table 6.7 Different conceptions of '*tongshi* education' and literal meanings of '*tong*' and '*shi*'

Meaning of ' <i>tong</i> '	Meaning of ' <i>shi</i> '	Meaning of ' <i>tongshi</i> '	Source
General and common	Academic and disciplinary knowledge	To develop a general and basic understanding of knowledge in a wide subject range (Conception 1)	TP17
To connect	Academic and disciplinary knowledge	To connect different academic disciplines by cross-disciplinary and interdisciplinary learning (Conception 3)	TP06
Unblock	The real understanding power of discrimination	To promote the student's intellectual virtues so that he or she is able to understand the fundamental principles and overall situation of the human condition (Conception 4)	TP20

Although only three interviewees in my study reported their understandings from the perspective of a literal meaning, I think it is reasonable to assume that many other teachers (regardless of being interviewed or not interviewed) might also make similar connections consciously or unconsciously. That is, some teachers, especially those who have relatively limited knowledge of *tongshi*

education as is defined by scholars, policymakers or the Western general education and liberal education, might understand the term from its literal meanings, which I believe is a natural and straightforward approach. That being said, I am not intending to suggest that all variations in the literal meanings of the two ideograms match perfectly with the four conceptions identified in this study.

This finding implies that the name '*tongshi*' chosen by policymakers might have substantial impact on academic staff members' understanding and teaching practices. As was mentioned in Chapter 1 and Chapter 3, some Chinese universities started to use '*boya* education' instead of '*tongshi* education' (such as Fudan University and Sun Yat-Sen University) to name their reforms. Therefore, it would be interesting to undertake cross-institutional research to compare how the two terms are conceptualised and applied in teaching and learning in different universities.

Third, in some cases personal character and interests are also observed to influence the teacher's conceptualisation of *tongshi* education. For example, the interviewee TP01's (professor, mathematics) conceptualisation of *tongshi* education as cross-disciplinary learning (Conception 3) was driven by his own interest in, and study of, both poetry and mathematics; and the interviewee TP18's (professor, sociology) involvement in social activism is probably one important reason why he insisted that *tongshi* education should contribute to students' civic development.

To summarise, the fact that there is a lack of clear guidelines for *tongshi* education by the policymakers at Zhejiang University (as was argued in Chapter 5) left much space for academic staff members to interpret the meaning of *tongshi* education. The term '*tongshi*' itself contains rich and ambiguous meanings so that teachers can make their own understandings based on personal experiences and pre-knowledge of *tongshi* education.

6.4.3 The hierarchy of the four conceptions: to identify the key idea of *tongshi* education

In specifying the relationship between the four conceptions, phenomenographic researchers traditionally postulate a hierarchical relationship with some conceptions being viewed as more complex and better developed than others (Brew 2001). The higher level, or more complex, conception can incorporate elements of lower level conceptions. In my study, the hierarchy of the four conceptions can be viewed from two dimensions, as is shown in Table 6.7.

Table 6. 7 The four conceptions of *tongshi* education by two dimensions

	Separate from specialism education	Connected with specialism education
Focus on 'knowledge'	Conception 1: subsidiary; knowledge breadth	Conception 3: supplementary; crossdisciplinarity and interdisciplinary
Focus on 'knowing'	Conception 2: complementary; citizenship education	Conception 4: foundational; liberal development

The first differentiation is made in terms of whether *tongshi* education is separate from specialism education or connected with specialism education. Conceptions 1 and 2 describe *tongshi* education as separate and additive, promoting knowledge breadth by adding contents that are irrelevant to specialism education. Conceptions 3 and 4 describe *tongshi* education as being connected with specialism education. That is, beyond knowledge breadth, *tongshi* education is expected to achieve cumulative learning, which enables students to integrate and subsume the knowledge they have learned from *tongshi* education, to specialism development. In this sense, Conception 3 and Conception 4 are more advanced than Conception 1 and Conception 2. To explain the second dimension, I borrow Barnett's differentiation between 'knowledge' and 'knowing' (Barnett 2009). 'Knowing' refers to the edifying process of 'coming to know', i.e., through the challenges of engaging over time with knowledge, worthwhile dispositions and qualities may develop, and the

worthwhileness arising through the formation of epistemic and moral virtues (Barnett 2009; Barnett and Coate 2005). In this dimension, Conceptions 1 and 3 mainly focus on the what knowledge the student should master while Conceptions 2 and 4 highlight that *tongshi* education should contribute to the student's qualities as a responsible citizen and a critical thinker by drawing on the social and personal relevance of academic knowledge.

According to the two dimensions, Conception 4 conveys the most sophisticated understanding of the idea of *tongshi* education, while the other three conceptions only reveal partial and incomplete meanings. Conception 4 identifies the essential features of *tongshi* education, i.e., cultivating self-reflective learners, which could support the educational aims expressed by the other three conceptions.

In my study, only seven out of the twenty-one teacher interviewees reported Conception 4. The variation in academic staff members' understanding is not necessarily a problematic issue because it allows them to teach according to the specific sub-category of *tongshi* courses and their disciplinary backgrounds. However, the lack of a shared understanding has already caused various problems in teaching and student experiences, as will be discussed in Chapter 7. Therefore, I argue that Conception 4 of *tongshi* education should be shared by all the teachers for *tongshi* courses to guide their teaching practices.

6.4.4 Comparing teachers' conceptions with the existing definitions of *tongshi* education made by researchers

How could this conceptual hierarchy contribute to a better understanding of the idea of *tongshi* education? What is the difference between scholars' definitions and academic staff members' conceptions of *tongshi* education? In Chapter 3, Section 3.3, I have reviewed four definitions of *tongshi* education made by educational researchers. The four definitions describe *tongshi* education, respectively, as to (i) cultivate desirable personal qualities; (ii) promote students' knowledge breadth; (iii) develop students' understanding of classical texts; and (iv) explore effective educational models to serve the

multiple demands for the development of Chinese society and culture in this global era.

To compare academic staff members' conceptions with scholars' definitions, we can discern some overlaps. For example, both groups reported elements such as 'knowledge breadth' and 'social responsibility'. That said, the difference is also significant. In scholars' definitions, *tongshi* education is a reform agenda. The discussion is mainly focused on how *tongshi* education localises general education and liberal education, and revitalises Chinese educational tradition in the broad context of modern China. In academic staff members' conceptions I concluded in this Chapter, emphasis is largely put on how to achieve the expressed educational aims through specific approaches in class. For example, when talking about *tongshi* education as to promote students' knowledge breadth, scholars point out that the curriculum should be multidisciplinary and non-specialised, while academic staff members in this study discuss further about the various approaches and challenges in developing such non-specialised courses.

Moreover, through the phenomenographic analysis of the four conceptions, the relationship between *tongshi* education and specialism education has been clearly depicted. It points out the different possibilities of how *tongshi* education could contribute to specialism education. Therefore, academic staff members' conceptions offer a different perspective, which is of particular value to the discussion on how to teach *tongshi* courses effectively.

6.5 Summary

In this chapter, I have explored academic staff members' experiences and understandings of *tongshi* education, in order to discuss further how the reform has changed the curriculum and teaching practice at Zhejiang University. Academic staff members' understandings and practices of *tongshi* education play an important role in reshaping *tongshi* education, and have gone beyond the institutional agenda. In this sense, they are active agents who recreate and reshape *tongshi* education in teaching rather than passive recipients of the reform

I first discussed academic staff members' participation in *tongshi* education and their motivations for doing so. It was found that different groups of teachers, especially in terms of disciplinary background and academic rank, were involved in different sub-categories of *tongshi* courses, and reported different motivations for participation and different impacts of the *tongshi* education reform on their academic work. In particular, senior professors from subjects in the humanities and natural sciences were found to be more involved in *tongshi* elective courses due to the impetus of their own interest in the idea of *tongshi* education, opportunities to share their research with students, and institutional policies for rewarding outstanding teaching performance in *tongshi* elective courses.

Four qualitatively different conceptions of *tongshi* education were identified from interviews with academic staff members following the phenomenographic approach, which described different relationships between *tongshi* education and specialism education, and highlighted different orientations for students' development, i.e., knowledge breadth, civic development, academic development through cross-disciplinary and interdisciplinary learning, and liberal development. The fourth conception – *tongshi* education should be the foundation of the undergraduate curriculum and promote students' liberal development – stands highest in the conceptual hierarchy as the most complex and advanced, while the other three are partial understandings. Academic staff members' conceptions reveal the meanings of *tongshi* education beyond the policymakers' design. The different conceptions of *tongshi* education are influenced by three factors: (i) the teacher's knowledge of general education and liberal education in Western universities; (ii) the multiple meanings of the term '*tongshi*' itself; and (iii) the teacher's personal character and experiences.

Chapter 7 Students' experiences and understandings of *tongshi* education

7.1 Introduction

The conclusion of Chapter 5 showed that the *tongshi* education reform at Zhejiang University was designed and implemented to change the student experience in two respects. First, students are enrolled into the University without deciding their majors, and would spend the first two years on *tongshi* education to explore a wide array of subjects before transferring to specialism education. Second, students are allowed a greater degree of freedom in deciding what and when to learn because they could make more choices over which courses to take⁵⁶.

Based on interviews with students, this chapter will explore their experiences and understandings of *tongshi* education. In Section 7.2 I will report students' learning experiences of formal *tongshi* courses through examining their expectations and interests, the amount of importance, time and effort they give to *tongshi* courses, and their feedback on teaching and learning outcomes. In Section 7.3 I will then review other important issues reported by students about their experiences of the period of *tongshi* education, which is relatively separate from the period of specialism education, to discuss the impacts of *tongshi* education on students' development. In Section 7.4 I will analyse students' understandings of the idea of *tongshi* education. Section 7.5 concludes this chapter by bringing together different stories of *tongshi* education by the three groups of stakeholders, i.e., policymakers, academic staff members and students. I review how the *tongshi* education curriculum is planned, created and received at different levels, and discuss the underlying disconnections between these levels. Some major problems of *tongshi*

⁵⁶ Specifically, for *tongshi* elective courses, students could make choices from hundreds of options. *Tongshi* compulsory courses and *tongshi* lower-division courses are prescribed in advance but students can decide when to take the course, e.g., in the first year or the second year, and which teacher to choose because there are usually a few options.

education at Zhejiang University are pointed out and suggestions are made for more effective practices in *tongshi* education.

7.2 Students' learning experiences of *tongshi* courses

To attain a comprehensive review of students' perceptions of their learning experiences of *tongshi* courses, I adapted Lu's (2017) framework for student evaluation of *tongshi* courses which has been used in a Chinese university in Shanghai. In interviews, students were asked to describe and reflect on their experiences of formal *tongshi* courses from the following four aspects.

- **Expectation and motivation.** Given that students are given a relatively large degree of freedom to decide which courses to take, what are the factors influencing their decisions, e.g., personal interest, the teacher's reputation? How motivated are students for attending *tongshi* courses?
- **Engagement and inputs in learning.** How much attention, time and effort do students spend on *tongshi* courses, especially compared to those on specialism courses?
- **Teachers and teaching.** How do students comment on teachers' performance and the quality of teaching? For example, do teachers prepare for *tongshi* courses carefully? Are learning activities attractive, effective, and challenging? Are teachers inspiring and insightful?
- **Learning outcomes.** How do students comment on what they actually learn in *tongshi* courses? Is the learning regarded as meaningful?

Given that the three sub-categories of *tongshi* courses, i.e., *tongshi* compulsory courses, *tongshi* lower-division courses, and *tongshi* elective courses, are assigned different goals by policymakers and taught by different groups of teachers, as was discussed in Chapters 5 and 6, it is not surprising that student interviewees reported different experiences of the three sub-categories. In addition, I also noticed that some students focused more on their experiences of *tongshi* elective courses when they were asked about '*tongshi* courses' or '*tongshi* education' generally. In other words, *tongshi* compulsory courses and *tongshi* lower-division courses were more likely to be neglected by some students until they were reminded by me or other interviewees in the conversation. This finding suggests that these students, consciously or unconsciously regarded the two sub-categories as less relevant to the idea of '*tongshi*'. As will be discussed later, some students regarded *tongshi* lower-

division courses as a part of specialism education, whereas *tongshi* compulsory courses were seen as an element of the national standard curriculum. In subsequent sections, I will elaborate on student experiences of the three sub-categories and make a comparative summary.

7.2.1 *Tongshi* elective courses

As was mentioned in Chapter 5 (Section 5.3.3), the sub-category of *tongshi* elective courses is aimed at students' knowledge breadth through a general understanding of a wide subject range, and students' critical understanding of history, society and the global world (Zhejiang University, 2006). Students are required to take one or two courses from each of its six themes, i.e., history and culture, literature and art, economy and society, communication and leadership, science and research, technology and design, where dozens of options are available.

Many students expected *tongshi* elective courses to be less academically-challenging and less time-consuming than other categories of course (e.g., *tongshi* lower-division courses and specialism courses), and it was reported that, in general, their experiences have matched their expectations. It was argued that *tongshi* elective courses should not be 'aimed at intensive and systematic training' (Interviewee S3s03, 3rd-year, optical engineering) but only give a sketch of certain subjects and topics. Usually, students choose *tongshi* elective courses according to personal interest, the teacher's reputation, and the degree of relevance to their specialism learning, based on the recognition that *tongshi* elective courses are not the core element of the curriculum. A few students mentioned that they prefer *tongshi* courses which are easier to pass. The following excerpt from a group interview provides a good illustration of students' attitudes.

S2g04 (2nd-year, bioengineering): It depends on how much effort you could spend on *tongshi* [elective] courses⁵⁷. If you want to work hard on them, that's great. But you won't want to be forced to spend too much time. After all, they are not the main reason why you come to university... It's nice to explore some different subjects beyond specialism areas, but it shouldn't become a burden or distract you from what you should really work hard on. At least that's what I would definitely try to avoid.

S4g01 (4th-year, economics): ... My experience is that in most cases *tongshi* elective courses are quite easy to pass. As long as you attend classes and submit the assignment, which usually is not much, it would be quite easy to pass assessments... I think there is a sort of agreement between students and teachers that *tongshi* elective courses are not the main point of focus.

S2g04 (2nd-year, bioengineering): In most cases, yes. But some [*tongshi* elective] courses can still be quite challenging... I know several students, especially those from humanities background struggle in some courses in science and engineering which require advanced mathematical skills. Despite putting much time and efforts, they ended up with very bad scores... So it's important to choose suitable courses. Of course personal interest and relevance to specialism learning could be the priority, but we also need to think carefully about whether we are able to manage them with limited time and effort. And of course it's better if the teacher is generous with scores.

(Group interview 01 with students)

Students' attitudes towards *tongshi* elective courses as described above, are to a large degree influenced by the way *tongshi* elective courses are arranged in the curriculum by policymakers as well as teachers' attitudes and behaviours, which convey the message that *tongshi* elective courses are not important or essential.

First, as was pointed out by the interviewee S4g01 (4th-year, economics) in the above excerpt, the limited number of assignments and less-challenging assessments imply that, in general, *tongshi* elective courses do not require rigorous teaching and learning. A few students also reported that a number of teachers did not treat *tongshi* elective courses seriously, which gave the impression that these courses were worth less effort. For example,

⁵⁷ Like some other interviewees, the student was referring to *tongshi* elective courses when using the term '*tongshi* courses'.

S3g06 (3rd-year, management): I'm not intending to deny that there are many good and responsible teachers. But according to my own experiences, it's also very likely that we encounter teachers who don't treat [*tongshi*] elective courses seriously... For example, I used to attend a course on Taoism [a traditional school of Chinese philosophy], which could have been very fun... However, it was very obvious that the teacher was not enjoying teaching it. He didn't really care about how much we learnt and always wanted to finish class early. He probably thinks it's just an elective course and nobody cares... Most of the time he just read the slides which I believe were originally made for another course—probably a specialism course he taught...

(Group interview 02 with students)

Second, the sub-category of *tongshi* elective course constitutes only a small part of the curriculum, making up 8.5% of the total academic credits students are required to finish in four years. Moreover, as was pointed out by a few interviewees, students' performance and the results of the assessments in *tongshi* elective courses are usually not taken into consideration when they apply for scholarships, international exchange opportunities, honours degrees and various awards. The interviewee S3g06 thus argued that time and effort put into *tongshi* elective courses were less rewarding.

S3g06 (3rd-year, management): Despite that *tongshi* education is highlighted in policies, I'm not convinced of the importance [of *tongshi* elective courses]... The scores [I attained from these courses] are not counted anyway. It's specialism learning that determines everything, such as scholarship, work and postgraduate application. Therefore, it's better to concentrate on those courses.

(Group interview 02 with students)

Another factor mentioned by the interviewee S3s03 (3rd-year, optical engineering) is that many *tongshi* elective courses have been actually held during evenings, which suggests *tongshi* elective courses should and could be 'more relaxing' than those arranged during the day. I collected information for courses running between September 2014 and January 2015 (the autumn-winter semester) and found that about four fifths of *tongshi* elective courses were arranged during evenings (around 7-9pm), while other categories of course were mainly arranged during the daytime.

S3s03 (3rd-year, optical engineering): I enjoyed the evenings that I spent on *tongshi* (elective) courses. It is nice to listen to lectures I am interested in without much pressure.

Qijuan: That's also my impression of *tongshi* elective courses! Most *tongshi* elective courses I had were in the evening.

S3s03: ... I think it's reasonable... It's better to put courses that require more concentration during the daytime... After all, *tongshi* elective courses are not necessarily aimed at intensive academic training and can be taught in a more relaxing way...

(Interview, S3s03)

Both positive and negative comments were made by student interviewees on teaching and learning outcomes of *tongshi* elective courses. Among the positive comments, some students reported that their experiences were in general 'useful' (Interviewee S2s04, 2nd-year, science) and 'enjoyable' (Interviewee S4g01, 4th-year, economics). Specifically, three kinds of benefits were mentioned.

First, it was reported that *tongshi* elective courses not only provide students with broadened knowledge, but also change students' ways of thinking by introducing different perspectives from a wide subject range. This opinion echoes positively the expected goal of *tongshi* elective courses by policymakers.

S2s04 (2nd-year, science): As a student in science, I learnt many important topics about literature, law, poetry, and economics. I've benefited a lot from not only knowledge, but also different perspectives and ways of thinking... I think the experience helps me to develop a broadened horizon and a comprehensive understanding the world...

(Interview, S2s04)

In addition, some students also mentioned that *tongshi* elective courses could be connected with their specialism learning. For example,

S3g07 (3rd-year, medical studies): Last semester I took a *tongshi* [elective] course on engineering which introduced various mechanical devices. I think the course is helpful to me [as a student in medical studies] because it promotes my understanding of various medical machines... In general I feel more motivated to attend *tongshi* [elective] courses which are relevant to my major because they can provide useful supplements and connections...

(Group interview 02 with students)

Second, a few students mentioned that there were some 'unexpected benefits' (interviewee S4g02, 4th-year, automation) from *tongshi* elective courses in terms of insightful suggestions on study, career and life from inspiring teachers. It was highlighted that by attending *tongshi* elective courses, students have had more chance to meet outstanding teachers who were role models for students because of their scholarship and integrity. To quote from a group interview,

S4g02 (4th-year, automation): Through *tongshi* elective courses we got more chances to meet inspiring teachers and sometimes students from different backgrounds... I've attended several very popular courses held by good teachers... I think the most important part is not the knowledge they teach, but the attitudes they show towards learning, career and life, as well as public affairs. These have left very deep and positive influences on me.

S4g01 (4th-year, economics): Yes sometimes it's even just a small piece from informal speech from the teacher but can still leave very fundamental influence... In most cases you're actually not expecting it...

(Group interview 01 with students)

Third, some students reported that *tongshi* elective courses offered opportunities for students to explore various fields of study, which is itself a form of enjoyable and intrinsically worthwhile experience. Different from attaining knowledge and skills as learning outcomes, the pleasure of learning as an exploratory journey was highlighted. For example,

S4g01 (4th-year, economics): 'I think it [attending *tongshi* elective courses] is fun and enjoyable... It gives me more space to learn what I'm interested in, like astronomy and biology. For me it's wonderful that I could try telescopes and do scientific experiments in laboratories while majoring in economics... I would say it's a part of the best memory of my time at university.

Qijuan: So it allows you to develop interest...

S4g01 (4th-year, economics): Perhaps more than that... It makes me realise that there are so many topics and subjects. What I have learnt is just a small portion of knowledge so I become more humble... It also makes me enjoy the process of learning. Because you know, in secondary school learning is always subjected to examinations as well as external usefulness and benefits. But in *tongshi* elective courses the usefulness is not the priority. In this way I actually experience the pleasure of learning...

(Group interview 01 with students)

While interpreting students' positive comments of teaching and learning outcomes of *tongshi* elective courses, we should be aware that many students hold a relatively low expectation of the learning outcomes of *tongshi* elective courses. Therefore, in many cases *tongshi* elective courses are regarded as basically satisfactory when they are informative and easy to follow, and the content is attractive and interesting; and extra credit is given when the teacher is insightful and inspiring.

However, not all students were happy with the fact that *tongshi* elective courses only offer such superficial learning. A few student interviewees complained that a large number of *tongshi* elective courses were frivolous, so that no development could be achieved through these learning experiences. They argued that *tongshi* elective courses should promote students' open-mindedness and critical understanding of different academic disciplines. However, they made the criticism that some teachers lacked such qualities themselves.

S4g08 (4th-year, mathematics): I think one important function of *tongshi* education is to promote cross-disciplinary learning...However, some teachers themselves are so biased and rigidly limited by their own small fields that they are not able to teach *tongshi* courses... I used to attend a [*tongshi* elective] course on anthropology, and the teacher seemed to enjoy laughing at students from engineering and applied sciences..., saying that they were boring and materialistic. He liked to flaunt the value of anthropology as a 'real science' which I disagreed with... I also heard that some philosophy teachers explained Einstein's Theory of Relativity in a ridiculous way of philosophy... Attending these courses was simply a waste of time.

(Group interview 02 with students)

Moreover, some students cast doubt on the necessity of *tongshi* elective courses. Although admitting the possible benefits, these students argued that *tongshi* elective courses should be reduced or deleted from the formal curriculum. It was pointed out that the formal curriculum at university should be concentrated on specialism education and important skills in areas such as English, computing and mathematics. It was suggested that *tongshi* elective courses should be replaced by informal learning activities such as online courses and public lectures.

S4s02 (4th-year, history): I think the four-year time is very precious. It should be spent on systematic training in important areas, such as mathematics, foreign languages, academic development, and professional expertise... Broadened knowledge is of course important, but it can be gained through reading or online courses, which can be done, basically anytime... I am not against the idea of a broadened curriculum but the curriculum should be well-organised rather than containing whatever teachers can offer. It would probably only lead to a fragmented picture of knowledge... I think it would be more useful if teaching and learning during the first year is concentrated on some basic areas such as English and mathematic skills which can well support specialism learning and our development in the long term...

(Interview, S4s02)

To summarise, although the learning experiences of *tongshi* elective courses were described as useful and enjoyable by some students, in general *tongshi* elective courses were not regarded as an essential element of the formal curriculum. Responding positively to the goal set by the policymakers of promoting students' knowledge breadth, the sub-category of *tongshi* education is nevertheless criticised as superficial. Therefore, some students suggested that these courses could be replaced by informal learning activities.

I think the value of *tongshi* elective courses could be justified using academic staff members' clarification of the purposes of *tongshi* education, particularly in terms of students' civic and liberal development, as was discussed in Section 6.3. However, it seems that many students did not understand the importance of *tongshi* elective courses. I suggest two reasons for this. First, the irreplaceable value of *tongshi* elective courses has not been explained to students by teachers. Second, in many cases the teaching practice of these courses has failed to achieve the level of complexity which Knight (2001) believes to characterise higher learning, or to contribute to the deep approach of learning and distinctive ways of thinking (Biggs 2011; Entwistle 2009). Therefore, changes should be made both in institutional arrangements and in teachers' qualities and attitudes, to develop effective *tongshi* elective courses which highlight both breadth and depth by encompassing unending disputes, subtle concepts and large amounts of information to be organised and remembered.

7.2.2 *Tongshi* lower-division courses

According to the policymakers' design, *tongshi* lower-division courses should lay a broadened foundation for students' academic development and specialism education (Zhejiang University, 2006). The name 'lower-division' refers to 'the lower division of knowledge'. That is, before focusing on one narrowly specialised field of study, the student is guided to explore one broad knowledge domain which contains several further-divided subjects.⁵⁸ For example, students enrolled into the lower-division programme of natural sciences in the first year could choose further specialised programmes such as physics, chemistry, and geography. Although appreciating the University's efforts in creating a broadened curriculum, many students reported relatively negative feedback for *tongshi* lower-division courses. Two specific problems were identified.

⁵⁸ In 2006, Zhejiang University created the six lower-division domains: the humanities, arts, social sciences, natural sciences, engineering studies, agriculture, and medical studies. The division has been adjusted in the following years.

First, many *tongshi* lower-division courses are planned and delivered with the intention of providing a common foundation for a group of subjects within one broad knowledge domain. For example (as will be mentioned in the following excerpt), the *tongshi* lower-division course *Linear Algebra* is offered to all the students in the natural sciences. However, some students argued that such an arrangement was problematic because it would result in ineffective teaching and learning. It was suggested that the lower-division course should be further divided to be tailored according to the specific needs of different subjects. To quote from the interviewee S4g08

S4g08 (4th-year, mathematics): I don't think it is a good arrangement to ask students who will be major in different subjects to share a same [*tongshi*] lower-division course, because different subjects require different prior knowledge... For example, all students in natural science need to take *Linear Algebra*. But in fact, me as a mathematics major find the course could have included more advanced contents to better support my further study. In contrast, many other students who later major in chemistry or biology might find the content too advanced for their subjects... Although the idea that some knowledge is the common base for a group of subjects is true in a general sense, to design and deliver a course in practice is a different matter... I think it might be more effective to divide the course into several different classes according to the specific needs for different subjects.'

(Group interview 02 with students)

Second, some *tongshi* lower-division courses are intended to provide a basic introduction to a group of subjects within one broad knowledge domain. For example, a student enrolled into humanities is required to take *tongshi* lower-division courses in literacy studies, history and philosophy depending on the field of study he or she will advance to. Some students complained that many *tongshi* lower-division courses were irrelevant and time-consuming, which distracted their attention from specialism learning. That said, some others argued that these courses could be beneficial if a cross-disciplinary approach was adopted in teaching to promote students' critical understanding of the relationship of different subjects. To quote from a group interview,

S2g03 (2nd-year, informatics): At least in my programme, there are some courses which I think should be excluded from the sub-category [of *tongshi* lower-division courses]. I'm pretty sure they are not going to be useful for my specialism learning... I've decided to major in informatics. But in order to progress, I was asked to pass [lower-division] courses such as *engineering drawing* and *engineering training*. These courses focused on very practical skills for mechanical engineering. They are essential to mechanical engineering but definitely irrelevant to informatics. Yet I had to pass them only because the University put informatics and mechanical engineering together [into one lower-division programme]... These courses were extremely time-consuming and distracted me from what I should have concentrated on...I think the University should reconsider about the composition of the sub-category [of *tongshi* lower-division course].

S4g01 (4th-year, economics): I think it's not necessarily a bad idea to learn different subjects because they could provide different perspectives to promote understanding of our own majors... For example, my major is economics and I was required to take a [*tongshi* lower-division] course in sociology. I think the course is useful to my specialism learning... The key point is how to teach. I was lucky to have a teacher who was excellent in comparing and connecting the two subjects [sociology and economics]. He explained how the basic assumptions in sociology and economics differ, and how sociology is used in other subjects of social sciences. This helps me to develop a better understanding of my own major. If the teacher just focused on the theories of sociology itself, I might not be able to understand why I should take a course on sociology... Therefore, I think we probably need teachers who have a deep understanding of the broad knowledge map to design and deliver lower-division courses.

(Group interview 01 with students)

In general, students regarded the sub-category of *tongshi* lower-division courses as of vital importance in preparing them for academic development and specialism learning, and felt intensive effort should be put into the courses by both students and teachers. However, they reported that their expectations had failed. It is, as was mentioned by the interviewee S4g01, partly due to the lack of skilful teachers who are able to introduce not only the key content of one specific study area, but also its place in the broad knowledge map, connected and contrasted with other relevant areas. As has been discussed in Chapter 6 (Section 6.2), academic departments and schools have tended to send less senior professors to teach *tongshi* lower-division courses, and some professors overlooked the importance of these courses (Interviewee TP07, professor, chemistry). Although I am not intending to suggest that young teachers are less capable of developing and delivering good *tongshi* lower-division courses, the University and departments should pay more attention to

the recruitment of teachers for this sub-category, and provide adequate training and support.

Moreover, I find there is a discrepancy between students' expectations and policymakers' and teachers' intentions for *tongshi* lower-division courses. For policymakers and teachers, the sub-category of *tongshi* lower-division courses is to promote both breadth and flexibility of the curriculum. The aim is to help students to explore the common foundation for a group of subjects, and to support their different choices for further specialism learning. However, students understand its value and purpose to be as part of specialised development rather than *tongshi* education. That is, students expect *tongshi* lower-division courses to be planned and delivered in accordance with their specific needs for a certain specialism area. This mismatch contributes to negative feedback for *tongshi* lower-division courses. In this light, two strategies could be adopted to promote effectiveness while meanwhile keeping the flexibility of *tongshi* lower-division courses. First, the teacher should clarify the purposes of the *tongshi* lower-division course to help students to understand its relevance. Second, the University could introduce seminars to supplement lectures. While lectures cover the basic content of the subjects, several seminars could be designed with different orientations to further support students' specific needs.

7.2.3 *Tongshi* compulsory courses

The sub-category of *tongshi* compulsory courses consists of three different parts: political-ideological education, English and information and communications technology (ICT) education, and physical and military education. As was discussed in Chapter 5 (Section 5.3), *tongshi* compulsory courses are set according to national standards which present the national government's idea of a qualified citizen. The students' discussion was focused mainly on their experiences of political-ideological education. I found their opinions differed considerably depending on whether or not they met 'good teachers' (Interviewee S2g03, 2nd-year, informatics).

Many students described courses for political-ideological education as a waste of time and reported that they were 'reluctant to take these courses' (Interviewee S4s02, 4th-year, history).

S4s02 (4th-year, history): I think it's a bit too much that university students are required to take five courses on political-ideological education. These courses only repeat the doctrines on which we've already spent a lot of time since primary school. To me it is a big waste of time. I attended these classes only to sign on the attendance sheet to avoid being failed. But like many others, usually I just do my own stuff in the class...

(Interview, S4s02)

In contrast, some students reported positive feedback on some teachers and their teaching. These teachers were described as insightful and inspiring, who guided students to review the political doctrines critically and influenced students' ways of thinking and behaving. To quote from one group interview,

S2g03 (2nd-year, informatics): A common stereotype is that courses on political-ideological education are boring and useless. But in fact I learnt a lot from some very good teachers. I think some teachers [of political-ideological education] are among the best of whom I've been learning with.

S2g04 (2nd-year, biological engineering): ... This reminds me of my teacher of *Law and Morality* (one of the courses on political-ideological education). The professor was knowledgeable and humourous. He was also very skilful in teaching. He used various cases and encouraged us to debate on controversial issues, instead of telling us what is right. I still remember his speech in the last module, where he encouraged us to be an independent thinker. It's very inspiring to me and changed my impression of political teachers.

(Group interview 01 with students)

Therefore, some students suggested that it is important to select teachers of good reputation, which has been made possible through online information-sharing among students.

S4g01 (4th-year, economics): Instead of treating these courses as a burden, I think it is better to follow good teachers and to learn from them about how to critically understand the political propaganda. Some teachers are really good scholars and are always happy to talk with students openly. In class we can discuss lots of topics and teachers would recommend various reading materials. Through these courses I realise that there are actually very deep and complex discussions in these areas. They are less known to people because such discussions could not be easily accessed through public media. This fact makes the learning experience [of courses on political-ideological education] even more valuable.

(Group interview 01 with students)

This positive feedback from students echoes the interviewee FL18 (lecturer, political-ideological education) from whom I quoted in Section 6.3.3 (Conception 2 of *tongshi* education). That is, in spite of the government's political-ideological control, courses on political-ideological education could still be planned and delivered to contribute to students' critical understandings of history and politics, and personal development.

For the other two parts of *tongshi* compulsory courses, comments could also be divided into two contrasting parts. On the one hand, many courses were regarded as well-planned and delivered with sufficient materials and support. On the other hand, a few students argued that the teaching and learning in these courses was oriented to standard examinations rather than practical skills or critical understandings. The following excerpt, from the interviewee S3s01's comments on a *tongshi* compulsory course on ICT (programming languages), shows both sides.

S3s01 (3rd-year, law): It could have been more practical and to include some small projects... I mean the teacher was very skilful and patient but he put emphasis on preparing us for the final standard examination... It's necessary because the examination was difficult and we didn't want to fail it... We did lots of basic practices for that purpose without knowing how to apply them into real projects. To some extent I can understand his strategy because the class time was just so limited that it's impossible to include more practical contents. But I was thinking perhaps gradually the standard examination could be replaced by projects as assessment. It might mean more time and efforts on the course but it would be worthwhile because we would be able to use what we learn...

(Interview, S3s01)

As was discussed in Chapter 5 (Section 5.3), the sub-category of *tongshi* compulsory courses was mentioned less often by the policymakers because

very limited substantial changes were planned in the institutional agenda due to standard national requirements. However, from interviews with teachers and students, we find that there could be positive changes in the teaching and learning practices of these courses to promote students' development. These changes would firstly rely on a group of skilful and responsible teachers, and the University should also share teachers' good practice as an important way of providing support.

7.2.4 A comparative summary of students' experiences of the three sub-categories of *tongshi* courses

Table 7.1 summarises students' different experiences of the three sub-categories of *tongshi* courses in terms of the student's expectations, input and feedback on learning and learning outcomes.

Table 7. 1 Student experience of the three categories of *tongshi* course: a summary

Sub-categories of <i>tongshi</i> courses		Expectations	Learning input	Feedback on teaching & learning outcomes
<i>Tongshi</i> elective courses		Low expectations: enjoyable and useful learning experience	Low input	Positive and negative
<i>Tongshi</i> lower-division courses		High expectations: a broadened foundation for specialism education	High input	Generally negative
<i>Tongshi</i> compulsory courses	Political-ideological education; military& physical education	Low expectations: courses need to be passed	Low input	Positive and negative
	English and ICT	High expectations: basic skills	High input	Generally positive

Students' expectations, particularly their understanding of the value of *tongshi* courses is an important factor influencing their learning engagement and feedback. In general, *tongshi* lower-division courses and *tongshi* compulsory courses in English and ICT education were regarded as important; while *tongshi* elective courses and some *tongshi* compulsory courses (political-ideological education, and military and physical education) were not regarded as essential in the curriculum. This division is made mainly according to the degree of relevance to students' specialism education and career development.

Based on different expectations, students hold different standards for different sub-categories of *tongshi* courses. Specifically, when students have lower expectations, it seems easier for them to give positive feedback on teaching; while with higher expectations, it becomes more difficult for the teaching quality to be commented on as satisfactory. For example, *tongshi* lower-division courses are expected not only to be informative and enlightening, but also to connect with students' specialism learning and academic development. The fact that many *tongshi* lower-division courses fail to satisfy the second expectation leads to students' negative feedback. In this light, students' feedback on teaching and learning outcomes should not be interpreted as neutral reflections of the quality of teaching. The university policymakers should be aware of this factor when reviewing students' evaluations of the curriculum.

Another important finding is that, in interviews, students reported differences much more than connections between the three sub-categories of *tongshi* courses, and their learning experiences were described as fragmented rather than being coherent. If we review a student's first-year timetable, we find that the connection is weak not only among the three sub-categories of *tongshi* course, but also among courses within one sub-category. Although a few students are able to schedule coherent learning experiences by selecting courses with a focus, in more cases students spend time on irrelevant courses due to a lack of self-knowledge and professional advice. I will further discuss this issue in the following sections.

7.3 Students' general experiences of *tongshi* education

When being asked to describe their general feelings about campus life during the period of *tongshi* education, student interviewees used terms such as free, diverse, exploratory, uncertain, fragmented, and confusing. The following three particular issues were discussed in interviews which explain students' complicated feelings.

7.3.1 The student's freedom in deciding what to learn

As was reported in Chapter 5 (Section 5.3), the policymakers claimed that the *tongshi* education reform was designed to promote students' freedom in deciding what to learn and how to spend their time during the first two years. However, students' opinions differed on this so-called freedom. The following excerpt is taken from one group interview where some students held a small debate on the topic, serving as an illustrating example of the contrasting opinions.

S4g01 (4th-year, economics): To me, the most important feature [of the period of *tongshi* education] is 'being free'... I enjoyed the status where I was not limited by one school or one prescribed programme, but could take any course I like, explore different subjects, and meet people from very different backgrounds...

S4g02 (4th-year, automation): ...but I think to many students the freedom is only a superficial part. Because the GPA [Grade Point Average] of the first year determines which specialism programme we can be enrolled into. Sometimes the competition could be very intensive... Therefore, we need to not only work hard on every course, but also make decision carefully about which course to select... It's better to attend all the courses recommended by the department [into which you want to be enrolled] as prior learning requirement in the first year. In theory we're allowed to take these courses in the second or even third year, but the delay can be your weak point in the competition [for a popular specialism programme at the end of the first year]. In this sense, we actually don't have much space for free exploration... Moreover, in order to get a high GPA, many students would purposefully select courses which give higher scores. They would search information to find teachers who are more likely to give higher scores and attend their courses. Some would take much more courses beyond what are required only to boost their GPA. They don't care about whether the course is useful or not... *Tongshi* education is misused in this way. But you will probably be put in a disadvantaged place if you choose not to do so... Therefore, I think the so-called freedom is very limited. It allows us to taste a bit of different subjects, but I don't think it makes university education essentially different.

S4g01 (4th-year, economics): ... I think what you said is only one of the choices—and a quite bad one. As university students I think it's important for us to think carefully about our life choices and to become responsible for our own decision. Indeed it might be easier to be told what to do or to follow others, but I think the process of learning to make decision and to make the most of accessible resources is itself a valuable experience. Compared with being limited to one field from the very beginning (of my campus life), I think it's a big advantage that diverse resources and options are open to us.

S2g04 (2nd-year, biology): 'I agree that it [*tongshi* education] could provide opportunities, but it can also be problematic... I think it depends on whether the student has a clear idea of what he or she wants to achieve and the ability to search for useful information and guidance... Now looking back at my first-year experience, I find I was kept busy with various courses and activities yet without developing a clear idea of what I really want. Like many other students, I had been used to working on what was required by examinations but was less capable to deal with uncertainty... In this sense the freedom can be harmful because as students we might misuse the freedom and waste a lot of time on the stuff that are irrelevant...

(Group interview 01 with students)

To summarise, the interviewee S4g01 reported the positive aspects of having the freedom to choose in the light of the rich resources to support students'

personalised learning plans and activities, while S4g02 and S2g04 emphasised their anxiety caused by the potential misuse of freedom. As was argued by the interviewee S2g04, students' experiences and attitudes are to a large degree determined by their self-knowledge of personal interests, qualities and career choices, and the ability to search for information. It was mentioned that many students in their first year still lack such knowledge or abilities owing to their experiences in elementary and secondary education, which prioritise standard examinations over students' individuality.

The findings here should also be interpreted with reference to some teachers' ideas of *tongshi* education, i.e., Conception 4 of *tongshi* education as discussed in Chapter 6 (Section 6.3.5). It is argued that *tongshi* education should help the student to become an effective and self-reflective learner, who is, among other qualities, capable of using the freedom in learning to better support his or her development. However, students' feedback here indicates that such efforts are only partially successful. I think one main reason lies in the fact that there is a lack of practical guidance to help students to deal with uncertainty and use the freedom.

The formal *tongshi* courses that are planned and developed by teachers are usually organised around disciplinary and academic knowledge from subjects of humanities and arts, social and natural sciences to promote 'the student's understanding of self and the relationship with the world' (Interviewee FP16, philosophy, professor). This knowledge, albeit important in itself, cannot replace practical and professional advice for students on how to make learning plans and schedule timetables. However, I find that such advice is barely accessible either inside or outside the campus for students at Zhejiang University.

In addition, as was introduced in Chapter 5, during the first two years, students are based in residential academies instead of specific disciplinary schools. This arrangement has resulted in very limited communication with academic staff members after class. During this period, political tutors, who are mainly in charge of students' political conformity, also play the role of students' advisors

on all the issues of campus life, including study plans. However, political tutors are not qualified or professional advisors on academic development. Moreover, according to the numbers released in the 2016 University Yearbook (Zhejiang University President Office 2017), on average one political tutor is in charge of about 200 students, which makes it impossible for them to give personalised advice to every student. Therefore, political tutors are not able to provide professional suggestions on students' study plans. Because of this, it is of vital importance for the University to provide students with practical and professional suggestions to help them to make the most of the freedom granted by *tongshi* education, so that a higher degree of student choice could positively contribute to progression in learning and development.

7.3.2 Transferring from *tongshi* education to specialism education: preparation or distraction

Some students in their 3rd or 4th year reported that they experienced a few big changes when transferring from *tongshi* education to specialism education, in terms of the physical environment and learning activities. As described by the interviewee S3s01,

S3s01 (3rd-year, law): ... When entering the third year, I could easily feel, now it's a different stage ... because there are several big changes. First, I'm formally a student of the school of law and most learning activities have been concentrated [on the study of law]. I also moved to a different campus [where the school of law is based) ... So the whole environment and activities have changed.... During the first two years, we're based on the central campus⁵⁹, which is a more diverse place with various courses and people from different grades and academic backgrounds. I also spent lots of time on organising and participating in activities in the students' union... But now I withdrew from students' union and started to spend most time on specialism learning with teachers and students within my own school.

Qijuan: ... How do you feel about the changes?

S3s01: Hmm... I think they represent different stages of university education... The first two years are to explore the diverse campus life, and the following two years would be more concentrated... There is a change in my self-identity as well. During the first two years, I would describe myself as a student of Zhejiang University and when introducing myself I would probably label myself as the member of the students' union. But now I would say I am a law student.

(Interview, S3s01)

Students reported different understandings of the relationship, i.e., the connections and disconnections, between the two periods. In particular, their opinions differed on whether and how the experience of *tongshi* education contributes to specialism education. Some interviewees described *tongshi* education as a transition period, preparing students for specialised higher learning. It was argued that such a transition is particularly useful to Chinese students whose learning experiences in secondary education are mainly characterised by standard academic examinations, so that they can have more time and space to explore which field of study they like. To quote from the interviewee S3s01,

⁵⁹ As was mentioned in Chapter 5, there are five main campuses at Zhejiang University. All the first- and second-year students are based on the central campus (Zijinggang Campus), while from the third year many of them will move to other campuses where their schools are located.

S3s01 (3rd-year, law): I had more time to think about what to learn for my career in future... In the first year, I attended various courses, seminars and campus tours which introduced information about different specialism programmes and departments. Through these activities I gained a better understanding of both the University and myself, especially in terms of which subjects are attractive to me...

Qijuan: So you find it's useful that the curriculum is divided into two parts and specialism education is postponed a bit.

S3s01: Yes actually it's one of the reasons why I applied for Zhejiang University... In secondary school we were told that the most important thing is to get high scores [in examinations] and to go to a good university. However we were given very little space to think about what we liked and wanted to do for future career... I found it's difficult to take the decision within only a few weeks.⁶⁰ Therefore, I wanted to give myself more time because it is a very big life choice... In general I think it's worthwhile to spend the time because I gained a better understanding of the general picture of the University and its departments before being attached to one specific area...

(Interview, S3s01)

The interviewee S3s01's opinion echoes the policymakers' statement that one of the functions of *tongshi* education is orientation, i.e., to help students take better decisions for their specialism programmes and future careers by encouraging them to explore various options (Chapter 5, Section 5.3.4).

However, not all students welcome such an arrangement. Some interviewees argued that the two-year period of *tongshi* education is more a distraction than preparation for specialism education. It was pointed out that learning activities during the first two years were fragmented, as was mentioned earlier in Section 7.2.4, and what they learnt during the first two years failed to contribute to specialism education. For example,

⁶⁰ As was mentioned in Chapter 2 (Section 2.5.3), candidates are given around two or three weeks to take a decision on which higher education institutions and which specialism programmes to apply for after the National Higher Education Entrance Examination.

S4s08 (4th-year, mathematics): It's quite annoying that I had to take so many *tongshi* courses while I wanted to concentrate on specialism learning. I'm not against the idea of a broadened curriculum but it should be achieved not at the price of specialism education... I think it's unreasonable that it [specialism education] is squeezed into two years and a whole two-year period is filled with very fragmented learning activities... Moreover, [during the first two years] it's quite difficult for us to build consistent communication with teachers for the purpose of specialism learning because most of them are based on other campuses and they only come here [the central campus] when they give *tongshi* courses... According to the institutional policy, they are not responsible to first and second year students because the formal specialism education starts in the third year...

(Group interview 02 with students)

In addition, another manifestation of distraction was pointed out by the interviewee S4g05 (4th year, literature study). She complained that, in the College of Humanities and Arts, many senior professors had been teaching *tongshi* elective courses instead of specialism courses. The interviewee expressed her disappointment that students in these departments were deprived of the right to receive specialism courses given by senior teachers, and she believed this jeopardised the quality of specialism education to a considerable degree. Although I did not find similar evidence from other interviews, the interviewee's concerns are to some extent consistent with my earlier finding in Chapter 6 (Section 6.2.2), that teachers from the background of humanities and arts have been more involved in teaching *tongshi* elective courses. This issue has not been discussed in existing studies thus it is difficult to judge whether the problem is common in other Chinese universities. I think it offers a new potential perspective for us to review the impact of *tongshi* education reforms in teaching and learning, which could be included in future studies.

In general, the experience of *tongshi* education was usually described as a kind of pre-university education which is relatively separate from students' specialised development. Although a few students defended the necessity of this period for the purpose of better informing their decision on specialism education (e.g., interviewee S3s01), *tongshi* education is expected by policymakers, teachers and education researchers to fulfil some other important goals in supplementing, reinforcing and promoting specialism

education, as was discussed in Chapter 6 (Section 6.3). However, due to the problems discussed earlier, e.g., fragmented *tongshi* courses and a lack of professional advice for students on making learning plans, the two-year experience of *tongshi* education has in many cases, has caused some damage to the curriculum coherence in the name of knowledge breadth, flexibility and student choice.

7.3.3 The students' union and students' associations: a strong political-ideological control

Many students reported their experiences in the students' union and students' associations⁶¹ as an important part of their first two years of campus life. According to their description, many students were closely involved in the students' union and students' associations during the first two years and started to withdraw in the third year in order to concentrate on specialism learning. As was observed by one political tutor (PT01), the fact that the four-year curriculum is divided into two phases has promoted students' involvement in these associations.

PT01 (political tutor): I think it [joining the students' union and students' associations] is a very good way for the student to start his or her campus life. It's particularly important because now [after the *tongshi* education reform] first-year students are not enrolled into specific schools and it's very possible for them to feel isolated according to my observation. In this sense, joining the students' union and students' associations has become an important approach to social networking...

(Interview, PT01)

The majority of student interviewees gave positive feedback of their experience, which was described to contribute to their development in social, organisational and teamwork skills. To quote from the interviewee S3g06,

⁶¹ The students' union is run by students with the purpose of representing students both within the institution and externally, including on local and national issues. It takes charge of student affairs and student political socialisation. A students' association is usually to promote the practice of a certain professional activity or social issue, such as the debating society and the economics study association. There was one students' union and dozens of student associations at Zhejiang University during the time of my fieldwork in 2015, according to the University Yearbook (2015).

S3g06 (3rd-year, management): ...I joined the students' union in the first year... Sometime I felt it was the main part of my campus life during the first two years. A lot of time and efforts were spent on its activities and meetings. But I think it is worthwhile... First, we [members of the students' union] developed a very strong friendship in our department and worked together on many projects, which gave me a sense of belonging... Second, I learnt a lot during the process by meeting different people and dealing with various practical issues when planning and organising big events. I think it's a good training which formal classes cannot offer... And of course, the experience is an advantage when I apply for scholarship and prepare CV...

(Group interview 02 with students)

A salient point, worth discussing here, is that the political department – the University Committee of Communist Youth League (henceforth the Communist Youth League)⁶² – has exerted a strong control on the students' union and students' associations. According to the *Regulations on Students' Associations at Zhejiang University* (Zhejiang University Committee of the Communist Youth League 2008), the students' union and student associations at Zhejiang University, as in other Chinese universities, are under the direct leadership of the Communist Youth League. Specifically, many large students' associations are supervised by political tutors and staff from the Communist Youth League, which is also their main financial sponsor.⁶³

Due to the strong bond with the Communist Youth League, the social, cultural and academic events held by the students' union and students' associations are deeply integrated with the agenda of political control. The following excerpt showcases the interviewee's experience in one of the biggest student associations at Zhejiang University, the Student Association of Agricultural and Rural Development⁶⁴, and how the association is influenced by the Communist Youth League.

⁶² As was introduced in Chapter 5, the Communist Youth League is a subordinate department of the University Committee of Chinese Communist Party. It is in charge of students' political socialisation and to promote their conformity to the communist ideology.

⁶³ In the students' union and many students' associations, students do not have to pay membership fees.

⁶⁴ According to the Zhejiang University Yearbook 2016 (Zhejiang University, 2017), there were around 3000 members of the Association.

S3s03 (3rd-year, optical engineering): ...I would say it's impossible to hold big events successfully without support from the Communist Youth League... First of all, the Association itself is connected with the Communist Youth League since its establishment. Some leaders [of the Communist Youth League] play the role of advisors and we would meet with them frequently... Their advice helps us to develop a better understanding of national policies, social problems and reforms that are taking place so that we can initiate events and activities in accordance... From a very practical perspective, their support is also of vital importance for us to get sponsorship within and outside campus. For example, one of the most important long-term projects in our association is to recruit university students to be volunteer teachers for primary students in rural and less developed areas during the summer vacation. This project has been endorsed by the Communist Youth League, making it much easier for us to connect with the local communities.

(Interview, S3s03)

The above excerpt describes the role of the political department from a relatively positive perspective. However, a few students expressed their concerns for a negative impact of political control on student culture. To quote from the interviewee S4s02,

S4s02 (4th-year, history): I joined the students' union in the first year but quit before long because I realised it was not suitable for me... In general I feel the union is more like a bureaucratic department set by the University as a sort of propaganda tool. It's not an organisation representing students which would fight for ourselves. At least according to my experience, [within the students' union] resource and time were mainly spent on implementing the University's and the Communist Youth League's agendas, and people seemed to take it for granted... It's quite sad to find that many students join the Union only to pursue personal benefits such as networking. I'm not saying it's wrong to enjoy these benefits but I think they have ignored the most important value and function of the students' union ... which I think is to speak for the diverse student group.

(Interview, S4s02)

University campuses have long been regarded as an important battlefield for political-ideological control by the Chinese communist government (Zhao 2017). Political departments are deeply involved in the universities' functioning and reshape their reform agendas. In this case, the political control on the student experience is strengthened as a by-product of *tongshi* education reform by promoting students' involvement in the students' union and students' associations at Zhejiang University.

7.4 Students' understandings of *tongshi* education

At interview, students were asked to explain their understandings of *tongshi* education. Their discussion was mainly focused on two questions. First, what should a good *tongshi* education be like in modern universities? Second, is it necessary and possible to build such a *tongshi* education at Zhejiang University? Their opinions could be divided into two groups.

(1) A positive attitude towards the existing model of *tongshi* education

Most student interviewees simply accepted the existing model of *tongshi* education at Zhejiang University as the way *tongshi* education should be. For these students, *tongshi* education, when organised and delivered effectively, is an important element of the undergraduate curriculum which may promote students' knowledge breadth and open-mindedness through introducing a wide array of subjects into the curriculum. To a large degree, this opinion has an affinity with academic staff members' Conception 1 of *tongshi* education which was described in Chapter 6 (Section 6.3.2), probably owing to the fact that many *tongshi* courses and learning activities have been delivered and received in this way. These students believed that such a *tongshi* education is appropriate for Zhejiang University, which was described in interviews as one of the leading comprehensive universities in China. It was argued that students could benefit from *tongshi* education in terms of both academic development and employability. To quote from the interviewee S2s04,

S2s04 (2nd-year, science): A good university should be aimed at more than training specialists because it's different from a vocational college... Developing expertise is important but, as a university student, I feel more comfortable with the idea of being open-minded and versatile than being only familiar with knowledge and skills within one narrow area because the society has been fast-changing. And if you want to be competitive and successful, it's important to develop a comprehensive understanding of the world and the ability to work with different people... I think the ultimate goal of *tongshi* education is not to impart more factual knowledge, but to help students broaden their horizon and promote their ways of thinking... I think these will make a student distinguished whether he or she is to continue with academic research or to find a job.

(Interview, S2s04)

These students also discussed problems in the practice of *tongshi* education at Zhejiang University and made suggestions accordingly. For example, a few students argued that *tongshi* courses could be designed to promote cross-disciplinary learning and to strength the connections between *tongshi* education and specialism education. Some students suggested that the University should make some arrangements to guarantee and reinforce the regular communication between academic staff members and students in the first two years so that students are not left entirely on their own. Many of these problems and suggestions have already been mentioned in the above sections on the student experience.

(2) A negative attitude towards the existing model of *tongshi* education

A few students reported a different understanding of *tongshi* education and cast doubt on the necessity of *tongshi* education at Zhejiang University. For these students, a good *tongshi* education is a form of generalist education which should cultivate erudite graduates with expertise in different fields of study. It was argued that such a *tongshi* education might suit the small group of most intelligent students, rather than the whole cohort of university students. To quote from the interviewee S4g05,

S4g05 (4th-year, literature studies): ...It's not realistic to implement *tongshi* education at this university and [the reform] has resulted in more losses than gains... The problem is that the University is too ambitious and wants to achieve both breadth and depth for all students... A true *tongshi* education is to cultivate generalists who can master knowledge of a wide range with great depth... It's not realistic to expect every student to be versatile, like, being familiar with traditional classics and meanwhile skilful in programming languages at the same time ...As an ordinary student, I would like to prioritise my specialism competence. I would prefer if the University puts more efforts on promoting the quality of specialism education.

(Group interview 02 with students)

Moreover, the interviewee S3g06 compared *tongshi* education with her experiences of general education at a university in Hong Kong which she attained through a cross-border exchange programme, and pointed out that the University was not able to develop *tongshi* education in the contemporary context due to a lack of abundant resources, efficient management, experienced teachers, and limited institutional autonomy and academic freedom. To quote from the interview,

S3g06 (3rd-year, management): The University claimed to learn from world-class universities to practise *tongshi* education... But I think most, if not all, Chinese universities at this stage are not able to implement *tongshi* education.... It's very difficult because there are many limitations in terms of qualified teachers and other resources... I went to Hong Kong for exchange last year and was surprised to find the sheer amount of *tongshi* courses. Compared with that list, what we have here is nothing... More importantly, from that list you can see there are critical discussions on politics and public issues, while here these courses would be difficult... I don't think problems like this could be solved by the University policies...

(Group interview 02 with students)

The above two opinions from students have presented some critical issues of *tongshi* education at Zhejiang University that have come to the fore. However, in comparing students' with academic staff members' understanding of *tongshi* education, we can find that students' opinions lack the depth and sophistication embodied in academic staff members' conceptions. In general, students' understandings focus on the function of *tongshi* education to promote students' competitiveness in academic and professional development, yet important elements such as civic development and liberal development are less mentioned.

Lu (2017) believes that an effective and successful *tongshi* education should improve students' understandings of the importance of *tongshi* education. It is

argued that the value and idea of *tongshi* education could not be imparted to students through propaganda discourse but, rather, through students' own experiences. In this sense, the fact that most student interviewees in my study reported only partial understanding of *tongshi* education, could be regarded as an indicator that the teaching and learning practice of *tongshi* education at Zhejiang University is not yet satisfactory.

7.5 Seeking a coherent curriculum for *tongshi* education: some suggestions

In this section I will bring together different stories of *tongshi* education from the three groups of stakeholders at Zhejiang University, i.e., policymakers, academic staff members and students, to discuss how the *tongshi* education reform has changed the curriculum and the practice of teaching and learning at Zhejiang University. The concept of 'curricular coherence' will be adopted as central in this piece of analysis because it offers a useful lens to compare and contrast the different stories and to view the underlying connections and disconnections. It should also be noted that 'curriculum' here is understood from a broader view because the *tongshi* education reform not only changes the formal curriculum as a set of purposeful, intended experiences, but also shapes the unstructured and spontaneous learning that takes place within and outside the formal academic environment.

Many scholars have pointed out that the curriculum can be viewed from four levels (e.g., Bernstein 1977; Blackmore and Kandiko 2012; Knight 2001). **The planned curriculum** is described in curriculum policies and course documentation, which is practised by teachers into **the created curriculum**. **The understood curriculum** refers to students' learning experience and perceptions of the curriculum they received. **The hidden curriculum** refers to values and practices which are not planned or delivered explicitly in the formal curriculum but nevertheless 'conveyed through educational content and process and by the organisational culture' (Blackmore and Kandiko 2012).

It has been argued that the complex learning on which higher education should focus is best promoted by a coherent curriculum (Knight 2001; Maton 2009).

According to Knight (2001), curricular coherence could be viewed from three aspects. The first aspect of coherence examines the extent to which the planned curriculum is created and the created curriculum is understood. The second aspect highlights the importance of a seamless environment in which learning happens formally and informally (Eraut 2000). That is, curriculum content, organisation, learning and teaching strategies, and assessment arrangements should be consistent with one another, and non-formal learning activities and the out-of-classroom learning environment should be consistent with in-class activities. The third aspect requires that consistent messages should be conveyed in practices with which the institution and its teachers operate, about what matters and the 'rules of the game' (Knight 2001), e.g., whether the learning outcomes and qualities claimed to be important are actually rewarded in the system.

Figure 7.1 visualises how different levels of the curriculum are constructed by different stakeholders and contextual factors in the *tongshi* education reform at Zhejiang University. Based on this figure I will then discuss the curricular coherence of *tongshi* education. It should be noted that in Figure 7.1 I have differentiated between the planned curriculum by the policymakers and that by academic staff members, because in the curricular structure and content of *tongshi* education planned by both, the institutional agenda are reshaped by individual teachers' intentions, which has resulted in discrepancies between the two levels, as will be discussed later.

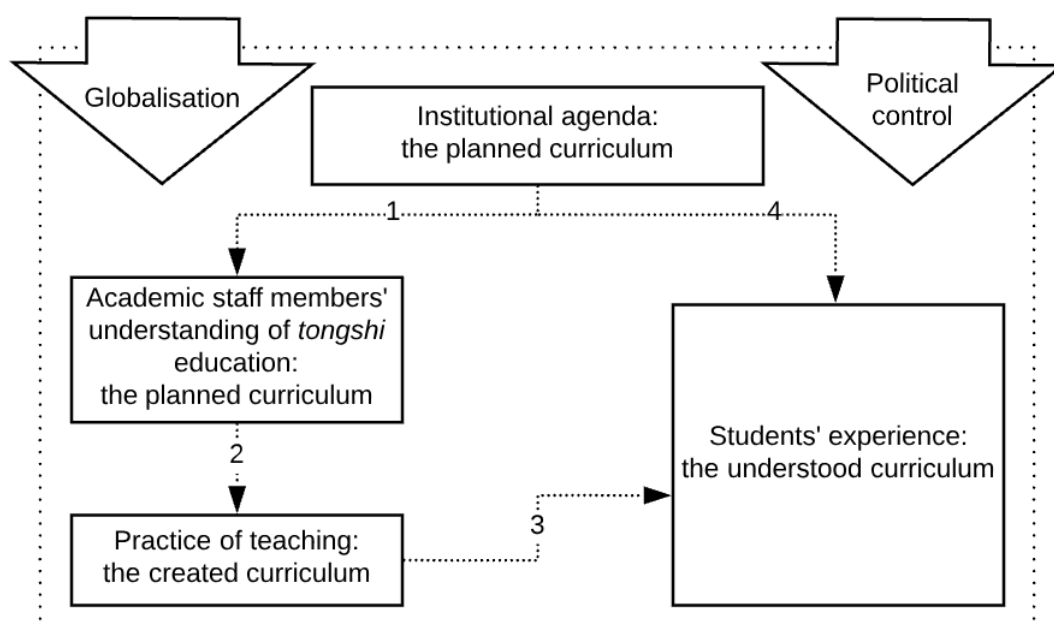


Figure 7. 1 *Tongshi* education at the different levels of curriculum

In Figure 7.1, the largest box in dotted lines refers to the general internal context (inside the University) of the curriculum, including the institutional history and organisational culture which have been described in Chapter 5 (Section 5.2). Two particular factors – globalisation and political-ideological control – enter into the inner field of the University as the most significant external forces determining the curriculum at all levels.

When explaining the rationale of the *tongshi* education reform, the policymakers highlighted the importance of a broadened curriculum and a greater degree of flexibility for students to choose what to learn. The national government's agenda of building 'world-class universities' also gave the principal external impetus for the reform. At the institutional level, the overall structure and content of the four-year undergraduate curriculum was changed by the policymakers' decision to introduce a large group of *tongshi* courses and set a separate period of *tongshi* education before students' specialism education. The category of *tongshi* courses, which makes up around 40% of a student's timetable, consists of three sub-categories with different functions, which are planned and delivered by different groups of academic staff members in terms of academic rank and disciplinary background (Line 1 in Figure 7.1).

However, academic staff members' plans and designs for *tongshi* education are not entirely determined by the policymakers' expectations. While responding to the institutional policy and participating in its implementation, academic staff members also expressed their own understandings of what *tongshi* education should be like. Four conceptions with different orientations – knowledge breadth, citizenship education, cross-disciplinary and interdisciplinary learning, and liberal development – were identified from interviews with teachers in this study. The different conceptions are shaped by factors such as teachers' knowledge of general education and liberal education. In contrast, academic staff members' conceptions go beyond the institutional agenda and explore richer and deeper connotations of *tongshi* education. Their understandings of *tongshi* education are embodied in the curriculum they have created in teaching practices (Line 2 in Figure 7.1).

When translating the planned curriculum into the created curriculum, teachers reported some difficulties such as limited time and resources, oversized classes and a diverse group of students with various backgrounds and expectations. As a result, many *tongshi* courses and learning activities are delivered as introductory lectures, which fail to reach the level of complexity that *tongshi* education is planned to achieve. Moreover, the fact that individual *tongshi* courses are based more on individual teachers' disciplinary backgrounds and research expertise than a shared idea of *tongshi* education also contributes to a fragmented curriculum. The created curriculum thus fails to fulfil the policymakers' expectation that *tongshi* education should be 'more than an atomic collection of different courses but a coherent system' (Interviewee A02).

At the level of the understood curriculum, on the one hand, students agreed that the curriculum, although being fragmented, could, at least to some extent, provide broader knowledge and a greater degree of flexibility (Lines 3 and 4 in Figure 7.1); on the other hand, they failed to fully understand the depth and sophistication of the idea of *tongshi* education expressed by academic staff members, and cast doubt on the effectiveness and value of *tongshi* education.

Students' experiences and understandings of *tongshi* education demonstrate the considerable influence of the hidden curriculum, which also reflects some signs of incoherence within institutional curricular policies. First, although the value of *tongshi* education was highlighted by policy documents, students' efforts on *tongshi* courses were reported to be less rewarding. Therefore, the importance and necessity of *tongshi* education was questioned by students. Second, a large number of *tongshi* courses, particularly *tongshi* elective courses, are arranged during the evening time with less-challenging assessments and assignments, while almost all specialism courses are arranged during the daytime. To students this implied that these *tongshi* courses did not require rigorous teaching and learning. Third, while being granted a larger degree of freedom to decide how to spend their out-of-classroom time, there is very limited support or guidance, e.g., professional advice on study and career plans, or consistent communication with academic staff members, available to help students make the most of the freedom. In this sense, the out-of-classroom learning environment does not provide a positive supplement for in-class activities; instead, it promotes students' deep involvement in students' union and associations which are characterised by a direct political-ideological control.

Reviewing the curriculum from different levels, and particularly the incoherence between the planned curriculum, created curriculum, understood curriculum and hidden curriculum, helps us to develop a better understanding of some major problems in the *tongshi* education reform at Zhejiang University. It should be noted (again) that 'coherence' here does not mean that the institutional agenda should be perfectly implemented by teachers and students, but rather, the planned curriculum, the created curriculum, the understood curriculum, and the hidden curriculum should share the same idea of *tongshi* education. This study suggests that the following three steps should be taken to build a more coherent and effective *tongshi* curriculum.

First, a shared understanding of *tongshi* education should be promoted among different groups of stakeholders. According to what I observed at Zhejiang University, generally the idea that *tongshi* education should provide broader

knowledge and a greater degree of student choice seemed to pervade all levels of the curriculum. However, this idea is vague and does not highlight the core idea of *tongshi* education and thus results in very different understandings and practices. The core idea of *tongshi* education, according to my investigation, should be students' liberal development as the foundation of the undergraduate curriculum. This idea should be clarified in curricular policies and documents, and be discussed and shared among academic staff members and students. Variations in teaching and learning practices should be based on the shared core idea.

Second, the core idea of *tongshi* education should be the ultimate guideline for the institutional policymakers when they plan the goals, categorisation and content of the curriculum. It should also be the guideline for teachers when they design and deliver individual *tongshi* courses, to align the curricular content, organisation, pedagogy and assessment. The current fragmented curriculum, which consists of three isolated sub-categories of *tongshi* courses, and with individual *tongshi* courses based more on individual teachers' disciplinary background and research expertise than a shared idea of *tongshi* education, should be transformed. Teachers should be trained and supported to develop skills in planning and delivering *tongshi* courses.

Third, out-of-class support and advice should be provided to students to help them make personalised study and career plans. The reformed curriculum has granted a greater degree of student choice over what and when to learn so that students can individualise their study and career activities. However, it was found that many students, who have been used to learning following a prescribed schedule due to their experience of primary and secondary education, lack the awareness or ability to make the most of the freedom given to them. The University now mainly relies on a limited number of political tutors to communicate with, and advise students on, all the issues of campus life; they, however, are not qualified or professional advisors on academic and career development. As a result, many students reported a fragmented learning experience where formal and informal learning activities did not

contribute to a clear goal. The University needs to put more effort and resources into effectively advising students on study and career planning.

7.6 Summary

In this chapter, I have explored students' experiences and understandings of *tongshi* education, and discussed how the *tongshi* education reform changed the curriculum and the practice of teaching and learning at Zhejiang University. I first reported students' learning experiences of formal *tongshi* courses, including their motivations, engagement, and feedback on teaching and learning outcomes. Many students described their learning experiences as fragmented, i.e., *tongshi* courses a student took were not related to each other, nor were they closely connected with specialism courses. In this sense, *tongshi* education was regarded more as a distraction to, than a preparation for, specialism education. When discussing students' general experiences of the two-year period of *tongshi* education, students reported that there was a lack of out-of-class support or advice to help them make personalised study and career plans; as a result many students misused the freedom granted by the *tongshi* education reform and spent much time on irrelevant courses. The *tongshi* education reform also resulted in the by-product that the political-ideological department exerted a stronger influence on students' campus life through their direct control on students' residence life and students' union and associations.

Students' understandings of the idea of *tongshi* education could be divided into two types. First, most student interviewees accepted the idea and model initiated by the policymakers at Zhejiang University as the way *tongshi* education should be. It is believed that such a curriculum is beneficial for students in terms of broadened knowledge and flexibility as supplements for specialism education. Second, a few others regarded *tongshi* education as a form of generalist education, to cultivate a small group of generalists who develop expertise in several different fields of study. It was argued that such a *tongshi* education would require abundant resources, efficient management and experienced teachers, which were not available at Zhejiang University. In

general, students' understandings of *tongshi* education lack the depth and sophistication expressed by academic staff members.

I concluded this chapter by bringing together and revisiting different stories of *tongshi* education by the three groups of stakeholder, i.e., institutional policymakers, academic staff members, and students. From the perspective of curricular coherence, I have examined the connections and disconnections underlying the different stories. I have found that, while the message of promoting a broader curriculum and student choice was shared by all the three groups, there were considerable discrepancies within the curriculum being planned, created and understood. Suggestions on how to build a more coherent and effective *tongshi* curriculum have been discussed.

Chapter 8 The distinctiveness and potential of *tongshi* education

8.1 Introduction

In this chapter, I will review *tongshi* education and discuss its characteristics within the global context, where there have been an increasing number of curriculum reforms at research-intensive universities in different countries and regions. These reforms share the similarity of introducing liberal education into the undergraduate curriculum, especially the general education approach originally employed in many universities and colleges in the United States (US)⁶⁵. In these reforms, liberal education, within a long-lasting tradition of cultivating free minds in Western history, has been invoked as a promising strategy to fulfil the multiple – and sometimes competing – tasks confronted by modern universities in the 21st century. That is, liberal education is expected to promote students' employability in the knowledge economy through broad knowledge and various transferable and practical skills, to develop students' critical thinking, and to cultivate a strong sense of social responsibility and cultural diversity (Wende 2014). The *tongshi* education reform in Chinese research-intensive universities is one of these worldwide endeavours to practise liberal education.

As was discussed in Chapter 3, one important aim of my PhD project is to contribute to existing discussions on the worldwide trend towards liberal education by looking into one Chinese case study in depth. In the previous chapters of this thesis, I have discussed the background, rationale, process and experiences of different groups of participants to show a comprehensive picture of the *tongshi* education reform at Zhejiang University. In this chapter, I will put *tongshi* education in a global context and try to examine its distinctiveness from liberal education in other parts of the world. The fourth

⁶⁵ The relationship between 'liberal education' and 'general education' and how they are used in this thesis has been discussed in Chapter 3 (Section 3.2.3). Here I understand 'general education' as one specific approach to the long-standing tradition of 'liberal education'.

and last overarching research question of this study will be answered: **What is the distinctiveness of *tongshi* education when being reviewed in the global context where liberal education has been introduced into the undergraduate curriculum at universities in different parts of the world?**

The examination will be conducted simultaneously from the spatial and temporal dimensions. The **spatial dimension** investigates the distinctiveness of *tongshi* education in its specific social-political context through a comparison with liberal education in other parts of the world. The **temporal dimension** looks into the historical links underlying the distinctiveness of *tongshi* education, and the implications for the organisational culture and core values in Chinese universities. It should be noted that, while the discussion is mainly drawn from the case study of Zhejiang University as an example, I will also make reference to *tongshi* education reforms at some other Chinese research-intensive universities when it is necessary to indicate the differences.

In the following sections, I will firstly discuss the rationale underlying the global trend of renewed interest in liberal education in modern research-intensive universities, and the challenges and problems in its practice. The discussion is mainly developed based on existing English literature (Section 8.2). Then I will analyse the differences between *tongshi* education and liberal education in their aims, rationales, strategies and challenges, and explore the reasons behind these differences from China's unique historical and social context (Section 8.3). In Section 8.4 I will discuss the potential of *tongshi* education in China today where there is still a relatively strong political-ideological control on education. Some suggestions will be made on how *tongshi* education might bring fundamental changes in Chinese universities to promote liberal education.

8.2 Liberal education in modern universities worldwide: why and how?

8.2.1 The rationale for the global trend of liberal education

A number of scholars have observed that there is a common interest in liberal education by universities in different parts of the world. Vidovich et al. (2012) found that many universities in the British tradition, which used to provide three-year undergraduate programmes, have been introducing four-year programmes to include general education and liberal arts education. For example, liberal arts programmes have been offered at many universities in England where students take courses from different departments and decide their majors at the end of the first year (Turner 2016). Similar changes are also observed in some areas which were part of the British Empire, such as South Africa (Shay 2015) and Hong Kong (Benson 2012; Jaffee 2012). In some other parts of the world, such as the Netherlands (Van Der Wende, 2014), Japan (Hayakawa 2014), South Korea (Yeo 2015), Singapore (Zakaria 2015), Malaysia (Arokiasamy 2011), liberal education has also become an important topic in higher education. *Tongshi* education in mainland Chinese research-intensive universities is one of them.

What are the reasons behind the global popularity of liberal education? Van Der Wende (2014) believes that liberal education has been introduced in different countries as a strategy for pursuing global excellence in undergraduate education. It is pointed out that many countries, when approaching a mass higher education system where more than 40% of the youth cohort are enrolled into universities and colleges, have been experiencing a dissatisfaction with the undergraduate curriculum and a growing concern for the accountability of higher education. Governments and universities have been transforming the undergraduate curriculum to solve problems such as student disengagement and poor learning outcomes (Altbach et al. 2009). Liberal education is one of the strategies adopted to promote the effectiveness of undergraduate education for well-trained human resources for the 21st century global knowledge economy.

Moreover, the global discussion on ‘the world-class university’ has led to more awareness of the risks of unbalanced approaches that emphasise performance in research over that in education (Van der Wende, 2014). The idea of ‘the world-class university’ is increasingly inclusive of excellence not only in research, but also in teaching and learning. The growing cross-border flows of students, academic staff members and cooperative programmes, also require performance in teaching and learning to be internationally comparable. Therefore, there has been an increasing connection in the curriculum development and policies from different regions. The US-model liberal education has been gaining worldwide popularity, probably because of the outstanding performance of a large number of American universities in global rankings. Liberal education in their curricula is thus respected as an exemplar by universities in other regions.

Liberal education, with its long-lasting history, today has been associated with rich meanings, which make it potentially adaptive in different regions. Van Der Wende (2014) has found three different arguments for the value of liberal education, shown in Figure 8.1.

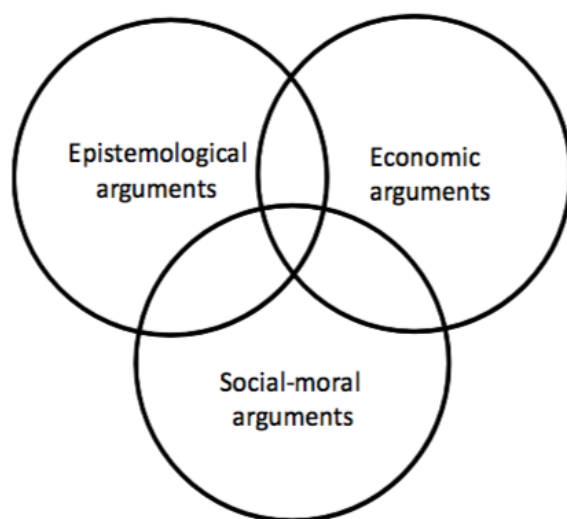


Figure 8. 1 The three arguments for the value of liberal education: proposed by Van Der Wende (2014)

The first argument highlights the **epistemological** dimension, which points out the role of liberal education in promoting interdisciplinarity and

crossdisciplinarity in the university curriculum to keep up with recent developments in knowledge. The second argument is made from an **economic and utilitarian** dimension, particularly relating to the employability of graduates. Liberal education is expected to enable graduates to be creative, critical thinkers, and problem solvers who can cooperate in teams and communicate across the boundaries of languages, cultures and disciplines. The third argument relates to the **moral and social** dimension and to the humanistic tradition of liberal arts. This underlines the importance of educating the free mind, with a view to developing social responsibility and democratic citizenship.

The above three arguments reveal the richness in the idea of liberal education today. Although the three arguments are not exclusive, it should be noted that tensions might arise, especially between the economic and the social-moral arguments. Some scholars (Axelrod 2002; Nussbaum 1997) have warned that there is an increasingly utilitarian emphasis in the discussion of liberal education, which has caused damage to its humanistic traditions and values. What is more, when being practised in other countries and regions with different historical and social contexts, liberal education could become a confusing concept because it now conveys very different aims, which could lead to uncertainty in its application. Therefore, education researchers should examine critically the policies and practices that are claimed to be 'liberal education' in different parts of world. Such investigation is still largely lacking (Vidovich et al. 2012).

8.2.2 Liberal education in modern universities: challenges and strategies

In spite of its global popularity recently, there have been critical discussions on the relevance and efficiency of liberal education in the English-speaking world. Liberal education, which has been experiencing declines, renewals, and reinterpretations in its long-lasting history, is still faced with doubts and challenges in modern universities. Is liberal education still important today? What kinds of liberal education do we need? What are the problems and

challenges confronted by modern universities to implement liberal education? These questions have been asked by scholars (e.g., Boning 2007; Bourke et al. 2009; Leslie 2011; Newton 2000; Nussbaum 2010; Weller 2012), universities (e.g., The President and Fellows of Harvard College 2007; The University of California Commission on General Education 2007), and associations such as the Association of American Colleges & Universities (AACU).

To use Barnett's (1990) conclusion, the modern prospect of liberal education is especially problematic on two accounts: the epistemological undermining and the sociological undermining. The **epistemological undermining** means that the traditional assumptions on which liberal education used to rest – i.e., objective knowledge and truth (e.g., Newman 1901) – has been put in doubt with modern developments in philosophy such as relativism, critical theory and post-structuralism.

The **sociological undermining** refers to the fact that the social independence of higher education institutions has evaporated because of two factors. First, higher education has become 'a pivotal institution in the apparatus of the modern state' (Barnett, 1990, p.189), being exposed to a direct and increasingly strong impact from the government and market. Axelrod (2002, p.86) argues that government policies privileging certain academic endeavours, e.g. applied science, high technology, business, selected professions, and mission-oriented research, at the expense of the social sciences and humanities, the fine arts, and basic scholarly inquiry, has been one of the sources threatening liberal education.

Second, the academic community has grown in size and influence to a large extent and exerted its own partial claims on the curriculum. The fact that the academic community has been divided into different – and in many cases, isolated – disciplinary sub-cultures (Becher and Trowler 2001; Neumann et al. 2002) results in boundaries in the curriculum, where, for example, problems in social sciences are defined as purely psychological or purely sociological so that a teacher in one discipline will exclude accounts given by a student

wishing to draw on findings from other disciplines (Barnett, 1990). In this sense, the curriculum and intended student experience is dominated by the purpose of legitimating specialised disciplines, rather than the personal development of students.

The situation is even more challenging in the research-intensive university due to the tension between the aims of liberal education and those of the research-intensive university (Kimball, 2014; Sloan 2013). Liberal education is aimed at the discovery of intrinsic values, the formation of character and citizenship, the development of community and close relationships between students and academic staff members, and the nurturing of culture. The research-intensive university is dedicated fundamentally to advancing knowledge and specialised research and relies on technical rationality and Cartesian reasoning (Kimball, 2010) and hence the goal of its undergraduate education is to be the development of critical reasoning and the command of research methods. These two viewpoints remain distinct, and reconciling or uniting them in one institution has always been 'a difficult and rare attainment' (Newman 1901, p.198).

However, many scholars believe that liberal education should be maintained as an important – if not the central – part of the undergraduate curriculum in research-intensive universities, to promote wider professional and civic virtues (Mulcahy 2009a). On the one hand, it is pointed out that many students in today's research-intensive universities will not become researchers or professors, but will instead become justices of the law, leaders of industry, representatives of political bodies, and corporate and financial leaders of society; thus universities should be prudent when deciding what kind of education best serves such a group (Muller 2009).

On the other hand, it is argued that research education is usually paradigm-driven (Sloan, 2013). Kuhn's (1963, 2012) claim that the process of training a scientist has been a highly dogmatic system could be applied to many other areas, is dominated by the intent to initiate one into an increasingly narrow inquiry into limited problems defined in accepted theories, without exploring

critical and foundational questions of the warrant for scientific reasoning. In this sense, Sloan (2013) advocates that research training, while being reinforced in universities under the influence of documents such as *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* (1999) by the Boyer Commission, should not replace liberal education. In research-intensive universities, liberal education could promote students' reading and reflection upon a wider body of literature, and support them to deal with theoretical knowledge and specialised inquiry, not only as mere techniques but also with meaningful links to personal and social development (Carr 2009).

According to some nationwide investigations in the US, there are mainly two approaches employed in American universities to practising liberal education (Aloi et al. 2003; Bourke et al. 2009): one is the core curriculum, and the other is the distribution requirement. **The core curriculum** requires courses to be organised on specific topics with content that is general in scope and meets fundamental and broad objectives. In many cases the curriculum is a deliberate selection of the so-called great books – those that tradition, institutions and authorities have regarded as constituting or best expressing the foundations of Western culture (Gaff and Ratcliff 1997). **The distribution requirement** consists of introductory courses from various academic departments, usually covering skills in writing, mathematics and foreign languages, along with a sampling of social science, natural science, and the humanities, before specialism learning and systematic research training in a focused area (Stevens 2001). The core curriculum is aimed at providing coherent and consistent learning experiences which allow for the integration of topics across disciplines in detail, while the distribution requirement highlights students' individualised interests and choices from a wide range of subjects and different disciplinary paradigms, based on the assumption that the breadth of courses offered across various disciplines is formative in and of itself, so that coherence will be constructed by students (Bourke et al. 2009; Elphick and Weitzer 2000).

It is reported that the distribution requirement approach has become increasingly popular in American research-intensive universities over the core curriculum approach, while the latter was the mainstream in the 1960s (Bourke et al. 2009). Latzer (2004) suggests that Harvard University's shift to a distribution requirement approach might influence other universities' choice due, in large part, to its prestige. This approach itself, on the one hand, allows a greater degree of flexibility to serve the large and diverse student population in research-intensive universities; on the other, has provoked concerns such as the lack of intellectual continuity and depth within a modularised curriculum (Shoenberg 2000).

The introduction of both approaches can be observed in universities in other parts of the world. At Zhejiang University and many other Chinese research-intensive universities, the distribution requirement approach is adopted to design the group of *tongshi* elective courses and to promote student freedom by the policymakers of Zhejiang University, as was reported in Chapter 5. In a few other Chinese universities, the core curriculum approach has been observed (e.g., the Boya Programme at Sun Yat-sen University, discussed in Stone 2011). Because my study was mainly based in Zhejiang University, I suggest that studies in the future could look into cases where the core curriculum approach is adopted to explore its rationale and implications, and to make a comparison of the two approaches in Chinese universities.

8.3 The distinctiveness of *tongshi* education in the Chinese research-intensive university

Since the late 1970s, Chinese research-intensive universities have become increasingly involved in the international community, and thus are confronted with similar challenges to those of their Western counterparts, such as global rankings and preparing their students to meet the demands of life in a highly precarious and rapidly changing world. To respond to the challenges, Chinese universities launched the *tongshi* education reform to learn from Western liberal education. The unique historical-social context in which Chinese research-intensive universities are embedded has determined the

distinctiveness of *tongshi* education in its aims, values and content. Specifically, I find there are three factors shaping the distinctiveness of *tongshi* education, which differentiate it from liberal education. First, the *tongshi* education reform is a part of the larger social transformation of the Soviet-style system in China which has created a new coordination between political, economic and academic groups. Second, *tongshi* education was firstly initiated, and has been mainly practised, in research-intensive universities which are elite institutions in China's remarkably hierarchical higher education system. Third, the modern history of Chinese education is characterised by a discontinuity with traditional culture, and by various influences from different countries such as Germany, France, the US, Japan and the Soviet Union.

8.3.1 *Tongshi* education as a part of the larger transformation of the Soviet-style system: the coordination between political, academic and economic forces

The direct impetus for *tongshi* education reform is to change the Soviet-style curriculum which has been described as over-specialised and overwhelmingly vocation-oriented (Chen 2010b). It is a part of the larger transformation of the Soviet-style education system in China, which changes not only the curriculum, the organisation and management within the university, as was discussed in Chapter 5, but also the relationship between the university and the outside world.

Burton Clark's (1983) model – the triangle of coordination – offers a helpful perspective for revealing the differences of the wider context between *tongshi* education and liberal education in other regions. The triangle of coordination (Figure 8.2) was abstracted from the comparisons of national higher education systems in different countries. It highlights three sources of authority deriving from the state, the market and the academic oligarchy, of which the coordination determines how the higher education system works, and what and how the values are expressed. Clark (1983) places the national systems under investigation in different locations within the triangle, exhibiting different types of coordination, as is shown in Figure 8.2

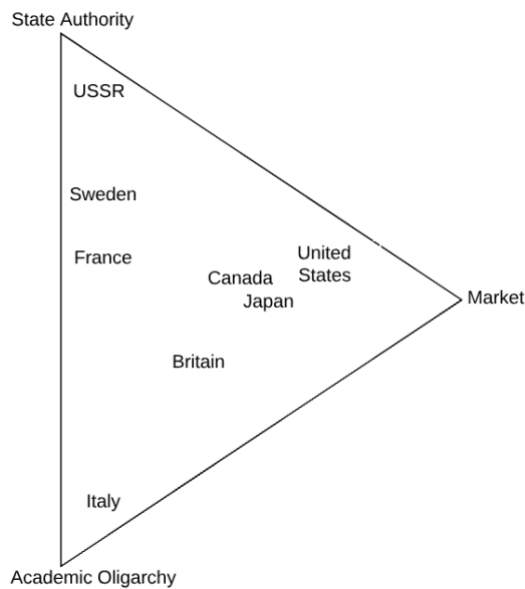


Figure 8. 2 The triangle of coordination in higher education (Clark, 1983, p.143)

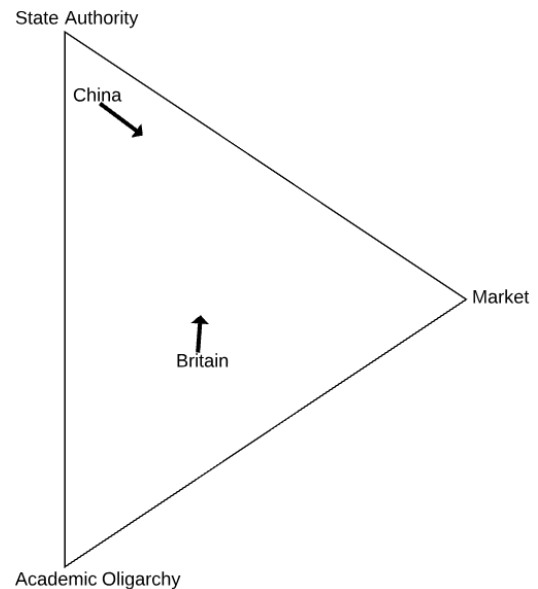


Figure 8. 3 Different flows of change: higher education in China and Britain

For example, the Union of Soviet Socialist Republics (USSR) is the ‘purest case of the triumph of the state over oligarchical and market interaction’ bureaucracy (Clark, 1983, p.142). Italy is towards the oligarchical extreme, where its prestigious national academic oligarchs are much more powerful than the relatively impotent bureaucracy. The United States system exhibits relatively weak academic oligarchies and national bureaux, and is characteristic of a strong trusteeship, i.e., supervision of an enterprise by outsiders.

In spite of the fact that both the positioning of individual countries and the overall distribution of countries within the triangle have changed after more than thirty years (Brennan 2010; Rothblatt 2012; Salazar and Leihy 2013), the framework can still serve to remind us of the traditions and histories in attempting to understand the forces of power and authority in different jurisdictions today. In Figure 8,3 above, I use and adapt Clark’s triangle to show how Chinese higher education has changed, with a comparison with that of the United Kingdom (UK), for a clearer explanation.

Britain is, arguably, one of the biggest movers heading away from the academic oligarchy in a zigzag fashion towards the corners of the state and the market (Brennan 2010), as is shown in Figure 8.3. It shows a weakening

of boundaries both within higher education institutions and between them and other institutions of society, and an invasion by the language and ideas of the business world. As a consequence, its agenda of liberal education, by highlighting ‘knowledge breadth’ and ‘interdisciplinarity’ as what ‘a lot of employers value’ (Turner, 2016), could be regarded as a reaction to the broadening of the social functions of modern higher education systems and the academic authority being increasingly subject to greater external challenges.

China was not among the countries being investigated in Clarks’ (1983) original study, but its national system built in 1952 was largely copied from the USSR. The system remained influential before the *tongshi* education reform, as was discussed in Chapter 2. In Figure 8.3, I adapted Clark’s (1983) original triangle and placed China in a similar place to the USSR. The ‘→’ indicates that education reforms, which were started from the end of the Cultural Revolution in 1976 and have been accelerated since the late 1990s, have been reshaping the system from a state-controlled model to a new one which allows more influence from markets, institutional administrative leaders and, to a lesser extent, academics. There have been three specific changes.

First, since China’s reform which reintroduced the market economy in 1979, an increasing number of graduates have been employed in private companies and non-governmental enterprises. Therefore, the undergraduate curriculum has become more responsive to the human resource market, rather than government’s rigid plans. *Tongshi* education, which highlights knowledge breadth and students’ flexibility and transferable skills, is an important part of the change.

Second, the policy development of *tongshi* education is underpinned by the fact that university administrative leaders and scholars, with the government’s permission, have gained a growing power to decide how to develop their own universities and departments and, accordingly, the curriculum and pedagogy (Cheng et al. 2013; Li 2006; Wang 2010). Moreover, a small group of scholars have become influential over government’s educational policies, usually in the

form of informal consultation and advice. This, to some extent, revitalises the long-lasting tradition in the ancient Chinese empire, where scholars enjoyed a certain degree of ‘intellectual authority’ to advise and criticise the governors (Zha 2011). According to Hayhoe (2011), the Chinese tradition of intellectual authority is different from academic freedom in the West, despite some overlap. The Western academic freedom focuses on scholars’ choices of inquiry, while the Chinese intellectual authority emphasises individual scholars’ responsibility to public interest.

The third change is manifested in the state’s ideological-political control, which has been weakened to a limited degree in the past four decades (Sandby-Thomas 2011). Subjects in the humanities and social sciences, which embody Western cultures and values, are allowed to be studied and taught on campus, in addition to the ideological canon of Marxism and Maoism. *Tongshi* education, in this sense, makes an important contribution because many of its courses – especially *tongshi* elective courses – are aimed at introducing different cultures to all the students. That said, the ideological-political control from the Communist government remains remarkably strong compared to that in other nations (Chen 2018). University campuses are still regarded as an essential battlefield of political-ideological control, more than a place for critical discussion on policies and politics (Feng 2017; Grove 2017). As was mentioned in Chapter 5, the political department has been involved deeply in the implementation of *tongshi* education through students’ arrangements such as the political tutor system and political supervision on students’ associations.

In these circumstances, *tongshi* education marginalises one of the core issues of liberal education, i.e., democracy citizenship. It is reasonable for us to assume that there might be a certain degree of self-censorship among policymakers and academic staff members, which would influence the curriculum development of *tongshi* education. According to my investigation at Zhejiang University, although the policymakers claimed that *tongshi* education should promote students’ social responsibility and critical understandings of human society, they did not give further explanations on this issue, as has been discussed in Chapter 5.

Among academic staff members interviewed in my study, there are a few arguing for the importance of citizenship education. However, when I checked the list of *tongshi* elective courses at Zhejiang University during the autumn-winter semester (2014-2015), in general there were very few courses on the topics of politics or citizenship. This phenomenon has been described by Hvistendahl (2010) as 'less politics, more poetry'. In the meantime, students are still required by the government to attend a large number of *tongshi* compulsory courses and other relevant activities on political-ideological indoctrination, imparting official discourses on political issues regarding ethnic minorities, religion, social equity, and international relationships.

8.3.2 China's hierarchical higher education system: research-intensive universities as the elite group

The contemporary Chinese higher education system, as was described in Chapter 2, is characteristic of a remarkably hierarchical structure. The three main types of institutions, i.e., research-intensive universities, teaching-oriented universities (comprehensive and polytechnic), and vocational training colleges, are respectively attached to different statuses as first-tier, second-tier, and third-tier in the system. The status decides: (i) which group of students the institutions can recruit through the National Higher Education Entrance Examinations; (ii) how much financial and other support from national and local governments they receive, and (iii) the popularity of their graduates in the human resource market (Bai 2006; Mok 2016).

The group of research-intensive universities stand top in the system, recruiting candidates who perform best in the standard examinations, and enjoy more resources and a better reputation. This group stands out in the system not only for their research performance, but also in their teaching quality (Gong and Li 2010). In other words, no teaching-oriented university would be regarded as better at teaching than a research-intensive university. Such a hierarchical structure is quite different from the American system, where there are both prestigious universities and liberal arts colleges, enjoying good reputations in teaching and with their own strengths and traditions. Consequently, *tongshi*

education, originally initiated and mainly practised in Chinese research-intensive universities, is in many cases regarded as a form of elite education, which is to be offered to the small group of the best students – at least those performing best in the standard examinations – to better support their specialism learning and research training. As was reported in Chapters 6 and 7, some academic staff members and students at Zhejiang University hold such an understanding.

Moreover, the fact that the Chinese research-intensive universities which firstly initiated *tongshi* education, e.g., Peking University, Fudan University and Zhejiang University, tended to look up to world-class universities such as Harvard University as exemplars of curriculum development, rather than the curriculum at traditional liberal arts colleges⁶⁶, also contributes to the uncritically examined understanding that *tongshi* education naturally links with ‘teaching and research excellence’. Therefore, in the policy statements of many Chinese research-intensive universities, including Zhejiang University, the value of *tongshi* education for promoting students’ performance in specialism education and research is prioritised over other important values such as transmitting a shared culture and intelligence to the whole cohort of students.

In addition, as was introduced in Chapter 1, in some universities, e.g., Peking University and Sun Yet-san University, so-called liberal arts colleges were established which recruit a small number of students from the first-year cohorts who are regarded as academically competent (from dozens to around one hundred). These colleges provide honours programmes covering a broad range of basic subjects in natural science and the humanities. Although they are labelled as ‘liberal education’ by the institutions and some scholars (e.g., Chen 2010a; Sun 2013; Zhong and Wang 2017), I would argue that there is a potential danger of misunderstanding liberal education as being the same as a broadened and intensive specialism education. Most of these programmes

⁶⁶ The only exception I found is Sun Yat-sen University, which started to work with St. John's College in the US from 2009, learning its distinctive curriculum centred on reading and discussing the Great Books of Western Civilisation.

are actually aimed at preparing students for intensive professional and research training rather than liberal education in terms of fostering culture, character and citizenship. For example, in the official statement of the Liberal Arts College at Sun Yat-sen University (the *Boya College*), it is claimed that the college is to foster future researchers in the humanities, and social and political sciences through students' intensive reading and writing on a wide range of relevant topics, as well as language learning of Latin and Greek. And in the past decade since its establishment, almost all of its graduates have chosen to continue with postgraduate education (Sun Yat-sen University 2015).⁶⁷

It should be clarified here that I am not intending to put liberal education and specialism education and research on opposing sides. *Tongshi* education should be expected to contribute to students' specialism learning and research performance through its agendas such as interdisciplinarity and critical thinking. However, as Sloan (2014) has warned, liberal education is about the long-standing tradition of fostering students' character and culture and citizenship, and it could not be replaced by a broadened curriculum for academic and professional excellence. The current situation where *tongshi* education has been initiated and mainly practised in research-intensive universities in China entails the potential danger of misunderstanding among policymakers, teachers and students.

8.3.3 The discontinuity with old traditions and various influences from other modern nations on China's modern education

Over its long historical span, the idea or practice of liberal education was never prominent in Chinese higher education. Despite the fact that there were discussions on introducing liberal education during the early 20th century among a group of Chinese scholars who returned from the US, the curriculum was never fully implemented in China. In fact, in the 1930s, the then president

⁶⁷ It should be noted that Zhejiang University also offers several honours programmes for broadened and intensive professional and research-oriented training. Although some scholars mistakenly understand these programmes as liberal education, the University never claimed so according to the information I collected.

of Zhejiang University, Zhu Kezhen, was among the advocates of introducing liberal education, whose attempt failed due to the Nationalist Government's regulation on a standard curriculum. In addition, although various Western missionary groups established dozens of liberal arts colleges in China in the late 19th century (Zhou and Zhang 2012), these colleges never became mainstream in China's higher education, due to their small size. All liberal arts colleges were closed by the Socialist Government in 1952 and were replaced by public specialised institutions. Therefore, the *tongshi* education reform today should not be understood as a continuation of the attempt to introduce liberal education during the Nationalist era (the 1910s-1940s), but rather, as a new initiative in the contemporary context.

Some scholars believe that *tongshi* education is rooted in the Chinese traditions of cultivating the whole person with the quality of self-reflection which are embraced by Confucianism and other traditional schools (Huang 2001; Zhang 2016). However, I would argue that the traditional elements are involved in *tongshi* education as a kind of 'resource' rather than 'source'. In other words, *tongshi* education is not historically rooted in Chinese traditional education or driven by the purpose of revitalising the traditions, but in the selection and renewal of relevant elements from the old traditions in the contemporary context. This is because of the entire system of modern education in China is characterised by a discontinuation with the old traditions, built on a combination of modern education systems in different countries including the US, Germany, France, Japan and the Soviet Union.

Therefore, unlike Western universities where liberal education is a tradition to be revitalised and renewed, in Chinese research-intensive universities, *tongshi* education is a new creation, which is open to including different traditions, e.g., liberal education, traditional Chinese education thoughts on the whole person, and the idea of cultural quality from the socialist education legacy. This, accordingly, has resulted in a lack of shared understanding of the idea of *tongshi* education (on what to teach). As was discussed in Chapter 7, different groups of participants within the university, i.e., policymakers, teachers and

students, hold different understandings of *tongshi* education, which causes problems in the application of the policies.

Particularly, there is a lack of shared understanding among scholars and among policymakers about the cultures and values to be taught in the *tongshi* education curriculum. As was argued earlier, one of the main goals of liberal education is to foster culture by transmitting traditions and values to younger generations, which is regarded as one of the oldest and most traditional social functions of higher education institutions (Durkheim 1956). For liberal education in Western universities, the content of cultures and values is relatively clear because of the shared long-standing traditions spanning the period from Classical Antiquity to contemporary modern democracies (Bourke et al. 2009; Ratcliff et al. 2001), despite the fact that there has been a growing concern over what should be included in the common reading list (Boyer and Kaplan 1994), and a growing criticism of the lack of cultural diversity, and being mainly focused on a group of white and male authors (Carnochan 1993; Toma and Stark 1995). However, for *tongshi* education at Chinese universities, because of the discontinuity between the ancient and modern histories in China, and various influences from different foreign cultures, there are some different challenges in teaching students the values and cultures.

First, how to teach China's traditional cultures and values in the modern university? Since the early 20th century, the traditional culture has been reviewed, re-organised and re-interpreted according to modern disciplinary paradigms and methodologies introduced from the West (Gan 2006). Some Chinese scholars argue that the contemporary paradigms have, to some extent, damaged the educational value of the traditional culture because it is mainly studied as an academic field, rather than as fundamental life wisdom and moral guidelines for action. It is argued that, in *tongshi* education, such paradigms should be changed (Chen 2014). Second, whether or not, and if so, what kinds of classics and topics from Western civilisations should be included in the curriculum of *tongshi* education as essential content for every student? In addition to Western cultures, how should other cultures be included? Third,

how to teach students about the interaction between the Chinese civilisation, Western civilisation and other civilisations?

In the investigation at Zhejiang University, I found that these questions have remained, to a large degree, unexplored by the policymakers or academic staff members. The policymakers, by adopting the distribution requirement model of liberal education (as was discussed in Section 8.2.2), did not set specific guidelines for the goal they came up with, i.e., promoting students' understandings of human culture, history and society. Academic staff members are left to explore how to achieve the goal themselves. Their opinions and teaching practices vary according to their own education and work experiences. For example, as was reported in Chapter 6, a few academic staff members (e.g., FP10, sociology, professor) argued that the universal values expressed in Western classics should be included in *tongshi* education and taught to every student, whereas some others reported that students could make individualised choices, for example, whether to take a course on Plato or one on Confucius (or both, or something else), as a philosophical training. In this light, students actually learnt very different content under the same *tongshi* education.

However, I find that some other Chinese universities have tackled these questions with different attitudes and strategies. This realisation firstly happened when I was looking through the themes of *tongshi* elective courses at other Chinese universities in the process of collecting general information of *tongshi* education. I noticed that some themes such as 'Western civilisation and tradition' (at Peking University) and 'Dialogues of civilisations and global horizons' (at Fudan University) are quite different from the categorisation at Zhejiang University. Table 8.1 lists the themes at Zhejiang University (2015) and those at Peking University (2015) for comparison.

Table 8. 1 Different themes of *tongshi* elective courses: a comparison between Zhejiang University and Peking University

Zhejiang University	Peking University
History and culture; Literature and art; Economy and society; Communication and leadership; Science and research; Technology and design.	Chinese civilisation and tradition; Western civilisation and tradition; Humanities, arts and nature; Modern society and its challenges;

The most significant difference between the two sets of themes is that Peking University foregrounds a comparison between Chinese and Western civilisations by setting two separate themes, i.e., ‘Chinese civilisation and tradition’ and ‘Western civilisation and tradition’, while Zhejiang University’s structure emphasises disciplinary and methodological division. In this light, Zhejiang University simply leaves this issue open to teachers and students, while Peking University takes a more active part in exploring a systematic review and discussion on what is the ‘culture’ students should learn (although the exploration is far from being finished).

I examined the themes of *tongshi* elective courses in all the other thirty-seven ‘98/5 Project’ universities which constitute the top-tier group of Chinese research-intensive universities, and found that, in general, twenty-nine of the total thirty-nine universities under review employed a similar structure to Zhejiang University and the remaining ten adopted similar systems to Peking University. What is more, among those ten universities, a few, e.g., Peking University and Fudan University, have started to work on reading lists for *tongshi* education which would further define the content of the ‘culture’ expected to be inherited by students (Zhang and Feng 2016).

The purpose of comparing the two approaches is not to draw a conclusion on which approach is better in general, but to show universities’ different attitudes towards the issue of promoting students’ understandings of cultural communication and conflict. I do not intend to suggest there should be a uniform answer to this question shared by all universities. That said, I would

argue that Peking University's strategy might be more successful in this case, because the question of 'what are the core contents of the cultures every student should learn' could not be simply ignored or postponed by policymakers and academic staff members. As was pointed out in Chapter 7, Zhejiang University's approach would probably result in discrete and fragmented learning experiences in *tongshi* education, because teachers tend to develop *tongshi* elective courses according to their own specialism and research interests without a shared understanding of the idea of *tongshi* education.

8.4 *Tongshi* education in an illiberal context: fragile hopes?

According to the three arguments for the value of liberal education summarised by Van Der Wende (2014) (in Section 8.2.3), i.e., the **epistemological** argument, the **economic and utilitarian** argument, and the **moral and social** argument, we can find that the last argument, on the importance of social responsibility and democratic citizenship, seems to be the most problematic in the Chinese context. The institutional policymakers of *tongshi* education prioritise issues such as knowledge breadth, flexibility, crossdisciplinarity and interdisciplinarity. However, as was discussed in the above sections, it has been remarkably challenging for universities and teachers to promote students' democratic citizenship. This finding echoes some arguments made in existing studies that the Western 'citizenship education' has an uneasy interaction with China's existing political-ideological education and moral education (Fairbrother 2003; Zhao 2013, 2017).

Some scholars (e.g., Hvistendahl 2010; Wende 2014) have cast doubt on whether liberal education can actually flourish in the illiberal context of China where political indoctrination is still an essential part of the curriculum and where freedom of speech is not guaranteed as a human right. The government wants creative graduates but prohibits critical thinking over political issues. However, it is argued that it would be very difficult to produce more creative people just by having them take a few courses outside their major without

cultivating an atmosphere for critical thinking (Hvistendahl 2010). Zhang (2012) also concludes from her case study in Renmin University (People's University) that *tongshi* education is a created rhetoric in the contemporary discourse of building world-class universities, which does not change the core values in Chinese universities.

How far could *tongshi* education go in this illiberal context? Could liberal education flourish in Chinese universities and bring some positive changes with regards to academic freedom, critical thinking and democratic citizenship, which have never been part of the core values of Chinese higher education? According to my case study of *tongshi* education at Zhejiang University, I would argue that there are hopes – albeit being delicate and fragile – that it might be possible to promote critical thinking and more open discussion on academic freedom and democratic citizenship. The hopes are mainly rooted in the following three practices.

First, individual courses and teachers could make a difference. In Chapters 6 and 7, I have discussed some cases at Zhejiang University where individual courses and teachers exert positive influences on students in terms of critical thinking and democratic citizenship. For example, by introducing the history of 18th century French society and how a group of intellectuals actively engaged with social and cultural changes, the teacher encouraged his students to reflect on their own responsibilities. Another example of a course on political-ideological education shows how a critical review of the doctrine is possible. At least according to my observations, there is a group of teachers enthusiastic about cultivating students' critical understanding of society and policies, and they have started to bring issues which are mute in the government-controlled media into the classroom. These bring valuable opportunities for students to develop the important qualities of critical thinking and open-mindedness, and help them to critically reflect on the government's discourses on social and political policies, ethnic minorities, religion, social equity, and international relationships

Second, the discussion on the idea and content of *tongshi* education itself could also promote reflection on the ancient-modern and Chinese-Western interface between cultures and values. The discussion, starting firstly among policymakers and educational researchers, has been gradually expanding to teachers, students, and the wider society through the mass media. It might be able to generate critical and more open understandings of education, culture and society, to challenge and perhaps replace the dominant socialist ideology.

Third, the increasing flow of international communication and cooperation in undergraduate education, e.g., exchange programmes and visiting schemes, could also exert a positive impact on students. As was mentioned in Chapter 5, more than half of the undergraduate students at Zhejiang University nowadays attend certain international programmes and projects, which allow them to stay abroad for weeks and months. This exposure to foreign societies and to learning more about their cultures is believed to help students become more open-minded in the long term (Li, 2018).

These hopes are fragile because fundamentally they are all subject to the government's policies and censorship. It is not impossible that there might be a total shutdown of these discussions and explorations because Chinese universities are still under the tight control of the state in finance and personnel matters. However, the current tendency, at least for the foreseeable future, is still relatively positive. Within the broader context where the Chinese economy has heavily relied on the global market, the international communication in culture – albeit with various conflicts – is also likely to continue.

8.5 Summary

The global trend towards introducing liberal education in the undergraduate curriculum is an example of interconnectedness in higher education policy development across different jurisdictions (Vidovich et al. 2012). When being reviewed within the global context, the distinctiveness of *tongshi* education within the global trend of liberal education can be understood in the following three respects.

First, as a part of the larger transformation of China's Soviet-style higher education system, *tongshi* education is underpinned by a greater degree of market influence on the undergraduate curriculum and a growing freedom for academics and individual universities to decide the curriculum. However, the political-ideological control from the state is still remarkably strong, thus a very important element of liberal education, i.e., democracy citizenship is nearly mute in *tongshi* education. Second, because *tongshi* education was first initiated and mainly practised in research-intensive universities, there is an inappropriately strong link between *tongshi* education and elite education, as well as between *tongshi* education and research excellence. Meanwhile *tongshi* education's value in cultivating character and culture for all students is marginalised. Third, due to the fact that there is no liberal education tradition in Chinese history, there is a lack of shared understanding of the idea of *tongshi* education among institutions and different groups of stakeholders. This raises the important question which has not yet been adequately explored at Zhejiang University, i.e., what is the core content of *tongshi* education, to contribute to a critical reflection on the renewal of Chinese traditional culture, and the interaction between Chinese civilisation, Western civilisation and other civilisations in today's global world?

Developed in Western civilisation, liberal education is characterised by traditions and values such as academic freedom, humanism and democracy. When being introduced into a very different context, whether and how these traditions could be kept remains a challenging question. For *tongshi* education in China, there is still a long way to go to promote students' democratic citizenship and critical thinking on social and cultural topics, because of the relatively strong political-ideological control from the state. Through my investigation at Zhejiang University, I argue that that there is still some hope – however fragile – because of teachers' efforts, the increasing international communication, and a continuing discussion on the idea of *tongshi* education and university education.

9. Conclusion

9.1 Introduction

This thesis reports my inquiry into the *tongshi* education reform at one Chinese research-intensive university, Zhejiang University. This case study explored the background, rationale, process and implications of the reform, as well as the experience of different groups of participants. In Chapter 1, I gave a brief introduction to the *tongshi* education reform in China in the last three decades. In chapter 2, the history of Chinese higher education from ancient to modern times was reviewed, in order to provide essential background information for today's Chinese universities. Chapter 3 discussed the existing studies on *tongshi* education in the Chinese and English literature. The knowledge gaps thus exposed were articulated, which led to the research questions of this thesis. In Chapter 4, I explained the methodological considerations, including the selection of the research site for this single-case study, the preparation and organisation for fieldwork, and data collection and analysis. I also discussed the ethical issues of this study and reflected on my stance as a cross-cultural researcher.

Chapters 5, 6, 7 and 8 presented the main findings and discussions of this study. In Chapter 5, I explored the policy process of the *tongshi* education reform at Zhejiang University, mainly drawing evidence from documentation and interviews with policymakers. The background, goals, strategies and key participants of the *tongshi* education reform at Zhejiang University were discussed. In Chapter 6, I interpreted academic staff members' experiences and understandings of *tongshi* education. In particular, using a phenomenographic approach, I identified four qualitatively different conceptions of *tongshi* education held by different groups of teachers, which revealed the richness beyond the policymakers' design. Chapter 7 reported students' experiences and understandings, through which I further discussed the implications the reform has had on the student experience. I also made some suggestions for the effective practice of *tongshi* education. Chapter 8 reviewed *tongshi* education in the global context. I noted that similar reforms

have been observed at universities in different parts of the world, where the US-style liberal education is introduced into the undergraduate curriculum. The distinctiveness and particular challenges of *tongshi* education in Chinese research-intensive universities were discussed.

This chapter serves as the summary of my thesis. In the following sections, I will firstly review the main findings and arguments of this research which answer the four main research questions (Section 8.2). Then the knowledge contribution and limitations of this study will be articulated (Section 8.3). In Section 8.4 I will discuss the implications for future research, policy and practice. This chapter ends with my personal reflections.

9.2 Summary of the main findings and discussions

To investigate the *tongshi* education reform at Zhejiang University, existing documents were drawn upon and semi-structured interviews were employed. I collected relevant policy documents and materials from the national government and the University. Semi-structured interviews were conducted with different groups of participants, including three university administrative leaders who were policymakers, twenty-one academic staff members from different departments who were teaching *tongshi* courses during my fieldwork between September 2014 and January 2015, twelve 2nd to 4th year students from different disciplinary backgrounds, two student-tutors and two political tutors. Thematic analysis was adopted to interpret the data. To analyse academic staff members' conceptions of *tongshi* education, I used phenomenography. During the process, I tried my best to ensure that the representation and interpretation of participants' views were gained reflexively and ethically. I will now reconsider the main findings in relation to each of the research questions, offering some concluding observations in terms of policy and research.

- **Question 1: What are the driving factors of the *tongshi* education reform at Zhejiang University, and how is the reform initiated and implemented?**

The impetus for *tongshi* education at Zhejiang University came from a variety of factors at national, institutional and global levels. First, in the late 1980s, one decade after the Cultural Revolution (1966-1976), the government required higher education to become more responsive to the job market, as a result of the nationwide economic reforms. The *tongshi* education reform at Zhejiang University, like those in other Chinese universities, thus embraces the particular goal of promoting students' employability in the knowledge economy. It is an institutional response to the national transformations including developing a mass higher education system and applying market principles into education. Moreover, accompanying the economic development, the government's discourse on 'the rise of China' (Narayanan 2007) became increasingly influential on universities' policies. Therefore, in Zhejiang University's documents, the *tongshi* education reform is claimed not only to prepare individual students for their futures, but also to contribute to the comprehensive national strength of China for its economic success and cultural renewal in the era of globalisation (Wende 2014).

Second, being re-merged from four separate institutions into a major comprehensive university in 1998, the leaders of Zhejiang University were seeking to rebuild a sense of unity within the campus. The institution-wide reform of *tongshi* education, therefore, was launched in the expectation of strengthening the bond among its departments by sharing the same goals. Meanwhile, in 1999, Zhejiang University, along with another 38 institutions, was selected by the national government to be a member of the national elite league with the goal of building world-class universities . Since then, the University has been developing its connection with prestigious universities abroad, and has sought specifically to emulate Western universities. The *tongshi* education reform can be understood, in part, as an institutional strategy aimed at improving the university's international engagement and recognition by learning from the Western tradition of liberal education.

The *tongshi* education reform aimed to replace the previous overspecialised Soviet-style curriculum by trying to promote knowledge breadth and students' choice of what to learn. The ideas and practices of Western liberal education were learnt and adapted into the local context of Zhejiang University. The four-year undergraduate programme was divided into two phases. Students would spend their first two years on *tongshi* education before transferring into specific academic departments for specialism education. To support curriculum changes, Zhejiang University has also changed its organisational structure, including developing a strong administrative department of undergraduate education at the university level, and building student residential academies to better organise extra-curricular activities.

The curriculum for *tongshi* education consists of three different parts: *tongshi* elective courses for the purpose of students' general understanding of a wide range of subjects in addition to their specialism education; *tongshi* lower-division courses to provide a broadened foundation for specialism learning through a group of introductory courses within a broad knowledge domain; and *tongshi* compulsory courses to serve the national government's requirement on political-ideological education, physical education, basic skills in foreign languages (primarily English), and information and communications technology (ICT). It can be seen that *tongshi* education is multi-faceted rather than serving a single goal.

The *tongshi* education reform at Zhejiang University has been led by senior administrative leaders, who determined its goals and strategies, while academic staff members and students reported that they were little involved in the process of policy development. I also found that the political departments on campus, especially the Committee of Chinese Communist Youth League (CCYL) of Zhejiang University⁶⁸, have exerted increasing influence on the student experience since the *tongshi* education reform. This is mainly because, as was discussed in Chapter 5 (Section 5.4.2), the reform, by

⁶⁸ The Committee of Chinese Communist Youth League (CCYL), run by the Chinese Communist Party (CCP), is present at all Chinese universities. The Committee is in charge of students' campus life in many respects, such as political education, scholarship and extra-curricular activities.

dividing the four-year undergraduate programme into two stages of *tongshi* education and specialism education, has resulted in reduced communication between students and academic staff members. Meanwhile, the large group of political tutors – the staff of CCYL who undertake the task of promoting students' political conformity – have been playing important roles to supervise students' study and career plans, residence life and extra-curricular activities on the campus.

In this respect, the *tongshi* education reform at Zhejiang University seemed to be paradoxical. That is, while claiming to embrace liberal education (which is to cultivate the free mind), the reform has actually led to a stronger political influence on the student experience. This phenomenon probably reflects the fact that the political departments, being deeply involved with the University's functioning in every respect, shape and reshape institutional policies to enhance their own power. I argued that studies on *tongshi* education in the future should continue to investigate this issue to see whether similar changes have taken place in other Chinese universities.

- **Question 2: How do academic staff members understand the meaning of *tongshi* education and practise it in teaching?**

Academic staff members' participation, experiences and understandings of *tongshi* education were explored to gain insight into how the reform has changed the curriculum and teaching practice at Zhejiang University. I first looked into the make-up of the group of teachers who were teaching *tongshi* courses at Zhejiang University in the autumn-winter semester 2014-2015, during my fieldwork. This group was analysed as a sample to discuss who, among the academic staff members, were more likely to teach *tongshi* courses. I found that different groups of teachers, especially in terms of disciplinary background and academic rank (i.e., professor, associate professor and lecturer), were involved in different sub-categories of *tongshi* courses. They also reported different motivations for participation and different impacts of the *tongshi* education reform on their academic work.

Specifically, academic staff members in the humanities and natural sciences were found to be more involved in *tongshi* education than those in social sciences and engineering studies. This is, as was discussed in Chapter 6 (Section 6.2.2), probably because academic staff members in social sciences and engineering studies are more research-engaged at Zhejiang University which allows them little time to participate in *tongshi* education, given that the University is particularly strong in its research performance in applied sciences. It was also observed that there was a higher ratio of professors in the group of teachers for *tongshi* elective courses than those teaching the other two sub-categories of *tongshi* courses. Among the interviewees, many professors for *tongshi* elective courses believed that the *tongshi* education reform had brought about more freedom for them to decide what to teach, and to share their research with students. In contrast, some lecturers expressed the pressures of research and producing publications, and regarded teaching *tongshi* courses as less rewarding.

I found that academic staff members at Zhejiang University held very different understandings of *tongshi* education because of their previous knowledge of liberal education, the multiple meanings of the term '*tongshi*' itself, and individual teachers' educational and working experiences. Following the phenomenographic approach, four qualitatively different conceptions of *tongshi* education were identified from interviews with academic staff members, which go beyond the policymakers' definition at Zhejiang University.

According to the first conception, *tongshi* education is designed to promote students' knowledge breadth through a collection of learning activities encompassing a wide subject range, as a subsidiary to specialism education. The second conception describes *tongshi* education as seeking to promote students' understandings of human history, culture and society, and to develop a sense of responsibility for building a better world; *tongshi* education provides an essential element of university education for every student because it provides a very important aspect which specialism education usually fails to cover. In the third conception, *tongshi* education supplements specialism education and promotes students' academic development through cross-

disciplinary and interdisciplinary learning. The fourth conception conveys the idea that *tongshi* education should be aimed at the student's liberal development and the promotion of intellectual virtues such as critical thinking, curiosity, open-mindedness and integrity; *tongshi* education is the foundational part of the undergraduate curriculum to empower the student to become an effective and self-reflective learner.

The four conceptions describe different relationships between *tongshi* education and specialism education, and highlight different orientations for students' development. I argued that administrators and academic staff members should become aware of all four conceptions and how they differ, so that a shared understanding of *tongshi* education could be built on the campus and implemented in teaching.

The four conceptions were compared following the phenomenographic tradition. The result showed that the fourth conception represents the most sophisticated understanding of *tongshi* education, while the other three only partially do this. That is because the fourth conception not only highlights the connection between *tongshi* education and specialism education, but also emphasises that university education should be about the students' development in character and social responsibility, in addition to intellectual and academic performance. It sheds light on how to create and deliver a coherent curriculum which cultivates not only specialised expertise but also the free mind.

- **Question 3: What are students' understandings and experiences of *tongshi* education?**

When being asked about their learning experiences of formal *tongshi* courses and general understandings of the two-year phase of *tongshi* education, many student interviewees at Zhejiang University used terms such as 'free', 'diverse' and 'exploratory' from the positive side, and 'uncertain', 'fragmented' and 'confusing' from the negative side.

Two particular issues are worth highlighting. First, while acknowledging that *tongshi* education had brought a great degree of knowledge breadth, some

students complained that the curriculum for *tongshi* education was fragmented. Specifically, in the student's timetables, the *tongshi* courses were not related to each other, nor were they closely connected with specialism courses. *Tongshi* education was regarded more as a distraction from, than a preparation for, specialism education. Second, *tongshi* education brought students a greater degree of freedom to decide what to learn, but many of them felt confused without professional and practical advice on how to make study and career plans. As a result, many students misused the freedom granted by the *tongshi* education reform and spent much time on irrelevant courses.

Students' understandings of *tongshi* education could be divided into two types. First, most student interviewees accepted the idea and model initiated by the policymakers at Zhejiang University as the way *tongshi* education should be. These students believed that such a curriculum was beneficial for them as a supplement to specialism education. Second, a few other students believed that *tongshi* education was to cultivate a small group of generalists who would develop expertise in several different fields of study. They pointed out that such a *tongshi* education would require abundant resources, efficient management and experienced teachers, which were not available at Zhejiang University at this stage. Although offering some critical insights into the pros and cons of *tongshi* education at Zhejiang University, students' understandings of *tongshi* education lacked the depth and sophistication articulated by academic staff members.

Moreover, students at Zhejiang University reported relatively low motivation and expectations for *tongshi* courses – especially the subcategories of *tongshi* elective courses and *tongshi* compulsory courses – compared with specialism courses. They believed that *tongshi* education should be less intellectually-challenging or time-consuming, because it was not the principal task of undergraduate education.

I found that students' partial understanding and low expectations of *tongshi* education were to a large degree caused by three problems in the policy

implementation and teaching practice of *tongshi* education at Zhejiang University. First, the values and aims of *tongshi* education were not fully explained to students by university administrators or teachers, thus many students failed to understand its importance. Second, some students reported that many teachers did not treat *tongshi* courses seriously and the teaching practice was of lower quality than for specialism courses. Third, in general students believed that their time and effort put into *tongshi* elective courses were less rewarding than that put into specialism education, because the results and grades of *tongshi* courses were usually unrelated to scholarships or job-seeking in the future.

Bringing together the different stories of *tongshi* education by the three groups of stakeholders, i.e., university policymakers, academic staff members and students, I found that, while the agenda of promoting knowledge breadth and student choice was shared by all the three groups, there were considerable discrepancies between the curriculum being planned, created and understood. I suggested that, to build a more coherent and effective curriculum for *tongshi* education, policymakers and academic staff members should make sure that the core idea of *tongshi* education was clearly expressed in *tongshi* courses and other relevant learning activities so that students could recognise its importance. The University should also establish specific departments or offices to provide professional advice to students on making personalised study plans, so that they can make the most of their two-year experience of *tongshi* education.

- **Question 4: What is the distinctiveness of *tongshi* education when being reviewed in the global context where liberal education has been introduced into the undergraduate curriculum at universities in different parts of the world?**

Many universities in different parts of the world have been observed to introduce liberal education in their curriculum as a strategy for pursuing global excellence in undergraduate education for the 21st century (Vidovich et al. 2012). Originating in ancient Greece and Rome, liberal education was historically characterised by its humanist tradition of cultivating the free mind.

However, scholars have pointed out that the recent impetus for the US-style liberal education has come from the need for education to serve various demands posed in this era of a global knowledge economy (Axelrod 2002; Wende 2014). Specifically, three types of demands have been identified.

First, liberal education is intended to promote interdisciplinarity and crossdisciplinarity in the university curriculum to keep up with recent developments in knowledge. Second, policymakers expect liberal education to contribute to graduates' employability by enabling students to be creative thinkers and problem-solvers who can cooperate in teams and communicate across the boundaries of languages, cultures and disciplines. Third, liberal education is crucial to educating graduates in social responsibility and democratic citizenship. *Tongshi* education is regarded by scholars as introducing this three-faceted liberal education at Chinese universities (You 2014). That said, from the case study at Zhejiang University, I found that there were three particular issues contributing to the distinctiveness of *tongshi* education within the worldwide trend of liberal education.

First, as a part of the larger transformation of China's Soviet-style higher education system, *tongshi* education is underpinned by a greater degree of market influence on the undergraduate curriculum and a growing freedom for university administrative leaders and academics to decide the curriculum. That said, the political-ideological control from the state is still remarkably strong (especially compared to that in Western universities). Therefore, education for democratic citizenship, while being an integral element of liberal education in many Western Universities (Gary 2006), has not been fully integrated into *tongshi* education. For students at Zhejiang University, like those in other Chinese universities, *tongshi* education includes: on the one hand, (elective) courses which are claimed by academic staff members to promote students' critical understanding of human society and social responsibility; on the other, (compulsory) political-ideological education which is to enhance students' political conformity to the communist government. These two parts are in many cases contrasting with each other, but the latter might be more influential given that it is compulsory and takes up more space in students' timetables.

Second, because *tongshi* education was first initiated and mainly practised in research-intensive universities, some participants at Zhejiang University, i.e., policymakers, academic staff members and students, regarded *tongshi* education mainly as a form of intensive academic training for the purpose of research excellence, while the value of *tongshi* education in cultivating character and culture for all students was less acknowledged. Some interviewees in this study considered that *tongshi* education should only be offered to a small group of students who are selected as academically talented while other students should concentrate on specialism education to prepare for vocational training. I argued that this is a misunderstanding of *tongshi* education. It would be particularly problematic given that other types of higher education institutions, including teaching-orienting universities and vocational colleges, have been modelling their practices on those of research-intensive universities.

Accordingly, my conclusion from this study, as was discussed earlier, is that *tongshi* education is to cultivate students to be self-reflective learners with social responsibility. It is not exclusive to research-intensive universities but, rather, an important element of higher education which should be offered to all students. Such an understanding should be shared among policymakers and academic staff members in each university.

Third, one important function of liberal education is to transfer the culture to the younger generation (Sloan 2013). In Western universities, the content of 'culture' and its underlying value is relatively clear and follows the long-standing tradition spanning the period from Classical Antiquity to contemporary modern democracies (Bourke et al. 2009; Ratcliff et al. 2001). However, it is challenging for *tongshi* education at Zhejiang University and other Chinese universities, given that there has been a discontinuity between the old Chinese traditions and various influences from (mainly) modern Western civilisations since the late 19th century. This raises the crucial question, i.e., What should be the core content of *tongshi* education, in order to develop students' critical reflection on the renewal of Chinese traditional

culture and the interaction between Chinese civilisation, Western civilisation and other civilisations in today's global world?

The practices at Zhejiang University suggest that the above question has not been sufficiently explored. The university policymakers left this issue to individual teachers, which, according to my observations, has been problematic because only a very limited number of courses were developed and these were insufficient to support all students. I argued that Zhejiang University should learn from some other Chinese universities, such as Peking University and Fudan University. As was introduced in Chapter 8 (Section 8.3.3), university policymakers and academic staff members in these universities have started to work on core reading lists and core courses which introduce a systematic review of and a comparative perspective on different cultures and civilisations.

Developed in Western civilisation, liberal education is underpinned by traditions and values such as academic freedom, humanism and democracy. When being introduced into a very different context, whether and how these traditions can be kept remains a challenging question. For *tongshi* education in China, there is still a long way to go to promote students' democratic citizenship and critical thinking on social and cultural topics, because of the relatively strong political-ideological control from the state. Through my investigation at Zhejiang University I argue that there is still some hope to achieve these goals – however fragile – based on individual teachers' efforts, increasing international communication, and a continuing discussion on the idea of *tongshi* education and university education.

9.3 Knowledge contribution and limitations of this study

9.3.1 Knowledge contribution

I suggest that this research has made contributions to knowledge in two respects. First, it conducted a critical and comprehensive inquiry into the concept of *tongshi* education from the perceptions of different groups of participants, challenging the opinion held by some scholars that *tongshi*

education is a translation of the western 'liberal education'. Second, by exploring the rationale, process and implications of the *tongshi* education reform, this study serves as a detailed example of the global-national-local dynamics underpinning the university curriculum development.

- **Constructing a multifaceted concept of '*tongshi* education' from participants' perceptions**

As I discussed in Chapter 3 (Section 3.3.5), in many existing studies, *tongshi* education is regarded merely as a Chinese translation of the Western liberal education or general education. The discussion has been mainly focused on the problems emerging in the process of applying the already well-established idea of liberal education into the Chinese context, while participants', especially academic staff members' understandings of *tongshi* education have not been sufficiently explored. In my study, emphasis was put on exploring the perceptions and experiences of *tongshi* education by different groups of participants.

To use the terms 'emic' and 'etic' from anthropology which I have mentioned in Chapter 4 (Section 4.6.2), the previous studies have mainly adopted an 'etic' approach (Kottak 2011; Xia 2011), where researchers used a universal and ideal model of liberal education to examine problems in its implementation in the Chinese context. In my research, I tried to combine the two approaches. First, the 'emic' approach was employed to investigate in-depth how the participants perceived *tongshi* education and how they constructed meaningful perceptions. Then I adopted the 'etic' approach by reviewing the distinctiveness of *tongshi* education, comparing it with the liberal education practised in other parts of the world.

It is through the 'emic' approach that I managed to develop a multifaceted concept of *tongshi* education, which reveals the complexity in its ideas and practices. I found that, unlike educational researchers, many academic staff members and students at Zhejiang University did not understand *tongshi* education as 'liberal education'. Instead, they interpreted the concept from its literal meanings (underpinned by historical links with the Confucian idea)

probably due to their limited knowledge of liberal education. Because of the multiple meanings of the term itself and participants' different experiences, there were various understandings of the idea of *tongshi* education, as was discussed above (9.2 Questions 1, 2 and 3). The reasons and implications for the pluralism in perceptions were also discussed, to inform policymaking and teaching practice of *tongshi* education in the future.

Given that even the long-lasting idea of liberal education is subject to questioning and renewal today, we should be more critical to the idea of *tongshi* education which is claimed by many scholars as its Chinese localisation. From this study, we could find that the idea of *tongshi* education is far from well-established or commonly shared among participants. I argue that the 'emic' approach should be adopted in future studies in order to attain a better understanding of *tongshi* education.

- **A detailed and contextual discussion on globalisation and localisation in the university curriculum policy development**

By exploring the policy process of why and how the *tongshi* education reform was initiated and implemented at Zhejiang University, and how it introduced and adapted Western liberal education into the local context, this study provides a detailed and contextual discussion on the dynamics of globalisation and localisation in university curriculum policy development.

This case study responds to the research agenda created by Vidovich et al. (2012) of a 'global case study' on liberal education. Some scholars (e.g., Frank and Gabler 2007; Macintyre 2009) point out that, in history, the university curriculum policy has been cyclically swinging between ideological polarities of generalist or 'liberal-humanist' curricula on the one hand, and vocationally-oriented, instrumental or 'neo-liberal' curricula on the other. They believe that the recent global trend of introducing the US-style liberal education into the undergraduate curriculum observed in different parts of the world, indicates a historical change on a 'liberal humanist' – 'neo-liberal' continuum. Therefore, it is suggested that empirical studies should be conducted to facilitate a better understanding of the current transformations, and whether the transformations would approach possible new paradigms of liberal education (Mulcahy 2008).

Research on this topic is still in its infancy and discussions are mainly focused on Western universities. My case study thus serves as a detailed example of the reform in a Chinese research-intensive university. By elaborating the background, driving factors, agenda and strategies, this study has aimed to shed light on discussions about the reasons for the transformation, challenges confronting liberal education in this era of a global knowledge economy, as well as the strategies for how liberal education could be renewed and practised in modern research-intensive universities.

Moreover, by investigating the process of policy development of the *tongshi* education reform at Zhejiang University, and how different groups of participants were involved in the reform process, this study is also able to contribute to a base of empirical knowledge, as well as theory, to inform the decision-making of the universities engaging in curriculum policy transformations as a key strategy to strengthen their competitive position in a global knowledge era (Dale 2000; Wildavsky 2010). Particularly, it serves as a detailed example of the global-national-local dynamics underlying the process of university curriculum development (Marginson and Rhoades 2002).

9.3.2 Limitations

The limitations of the current study should be acknowledged. The first limitation, I consider, is the inevitable shortcoming of single-case studies. With the emphasis on the details of one single case, it becomes difficult to look into details of other cases with the same depth (Walford 2001). Some conclusions drawn from this study, therefore, might not be directly transferable to other specific university contexts. As was mentioned in Chapter 4 (Section 4.2.2), this particular case was selected partly because it represents the large number of Chinese universities with strong departments in engineering studies and natural science over humanities and arts, which have remained largely absent in the discussions on *tongshi* education. Thus, the reader should be aware of the limitation in its theoretical generalisability applied to other types of universities and higher education institutions.

Second, there are some regrets that I did not include some particular groups of interviewees who might be able to offer important information. As was discussed in Chapter 4, in the process of sampling, I selected mainly from academic staff members who were teaching *tongshi* courses as teacher interviewees in order to collect more data on their teaching experiences. However, academic staff members who did not teach *tongshi* courses might also report important insights into *tongshi* education from the perspective of why they chose not to participate. For example, after analysing the make-up of teachers for *tongshi* courses in the autumn-winter semester 2014-2015 at Zhejiang University, I found there was a relatively low participation of professors from social sciences and engineering studies teaching *tongshi* courses. It might be helpful to interview some of them to explore reasons for the low participation. In addition, there might also be a group of teachers who used to teach *tongshi* courses but withdrew later on for different reasons, as was reported by Liao (2012) in her case study at a university in Shanghai. These academic staff members might be able to provide critical insights on *tongshi* education.

Leaders (e.g., school deans) and administrators at the level of school and department could also be included, who were important participants in the application of *tongshi* education, undertaking the task of communicating with teachers and students. Moreover, I only interviewed two political tutors in this study, without realising the important role of the political departments in the *tongshi* education reform when designing this study. I suggest that studies on *tongshi* education (and reforms in universities) in future should try to include members from political departments, such as senior staff of the University Committee of Chinese Communist Youth League (CCYL) and political tutors. Researchers should be aware that, whether or not the political departments participate directly in policy development, they are very likely to be powerful stakeholders of university reforms because of their deep involvement in the functioning of the university.

The inadequacy in interviewee sampling was mainly caused by a lack of knowledge of who were the important participants in the *tongshi* education

reform at the stage of designing this study. I hope that lessons could be learned from this case study.

9.4 Implications for policy development, teaching practice and future research

9.4.1 Implications for future research

This exploratory research, by identifying relevant issues surrounding the *tongshi* education reform at Zhejiang University, provides some important insights for future research. Many specific topics deserve to be further examined in greater depth, such as the specific strategies of citizenship education in *tongshi* education and the impacts of political departments on the *tongshi* education reform. To closely follow up the inquiry in this study, I consider the following proposals as necessary priorities.

First, more case studies should be conducted to investigate the *tongshi* education reform, especially in other types of higher education institutions, given that more than 90% of Chinese college students are enrolled in teaching-oriented universities and vocational colleges, but their curriculum reforms have been less discussed. These case studies should address and answer questions about why, when and how the reform policy is made, the effects of policies on different groups, and its impact on values, assumptions and ideologies within and outside the campus (Simons et al. 2009).

Apart from documents and interviews, data could be collected from other sources such as surveys and classroom observations. In particular, given that we now have a better understanding of the different orientations in participants' understandings of *tongshi* education (the four-faceted model of different conceptions of *tongshi* education), surveys could be carried out to reach a larger number of academic staff members and students, to see which orientations are more popular within the campus (and within specific groups). Classroom observation could be adopted to examine whether the reported strategies of teaching have worked or not, and whether there are problems not being mentioned in interviews.

Some important issues identified from the case of Zhejiang University, such as the strong political involvement and the imbalance in participation of academic staff members from different disciplinary groups, should be examined in more case studies, to assess the extent to which these findings may be true in other settings. As is pointed out by some scholars, similar projects employing similar methods but conducted in different environments could well be of great value (Houghton et al. 2013). The accumulation of findings from studies staged in different settings might enable a more inclusive, overall picture of *tongshi* education to be gained (Shenton 2004).

Second, in addition to single case studies, multiple case studies, which allow comparisons in diverse settings, should also be conducted (Darke et al. 1998; Donmoyer 2009). Comparisons could be made, not only between the general models of *tongshi* education in different types of higher education institutions, but also between the different approaches to *tongshi* education, for an in-depth discussion on the reasons and implications.

Several particular topics for comparison have been mentioned earlier in this study. For example, a study could be conducted to compare the reform agendas and processes in a university like Zhejiang University, where the *tongshi* education reform is dominated by senior administrators, and those in a university like Sun Yat-sen University, where the reform is led by a few scholars, who designed the curriculum based on their working experiences in the US.

Another topic for comparison would be the two curriculum models of *tongshi* education, as discussed in Chapter 8 (Section 8.2.2). One is **the core curriculum**, which requires students to take the same set of *tongshi* courses on specific topics determined by the university (e.g., adopted at Nanjing University and Sun Yat-sen University). The other model is **the distribution requirement**, which consists of a wide range of introductory courses from various academic departments (e.g., adopted at Zhejiang University and Fudan University) for students to choose according to their own interests. The choice between the different approaches indicates the policymakers' different

understandings of *tongshi* education. The different rationales and implications for students' development should be explored.

Third, longitudinal studies could also be carried out to examine whether and how *tongshi* education influences students' development, e.g., their career choices. While most of the existing studies are focused on undergraduate students on campus, I argue that graduates should also be interviewed or surveyed, to explore the influence of *tongshi* education in the long term.

9.4.2 Suggestions for policy development and teaching practice

This study also offers some suggestions for more effective practice of *tongshi* education at Zhejiang University and, possibly, other Chinese universities.

First, it is important that academic staff members and administrators become aware of the four different conceptions of *tongshi* education (as discussed in Section 9.2 Question 2) and how they differ. The pluralism in participants' perceptions is not necessarily a problematic issue because it allows academic staff members to teach according to specific purposes and features of their own *tongshi* courses. However, the pluralism should be built upon the core idea of *tongshi* education, as was discussed in Section 9.2 (Question 2), which is to cultivate students as self-reflective learners. It is based on this core idea that teachers could develop *tongshi* courses with various other orientations such as interdisciplinary learning or citizenship education. In this way, different *tongshi* courses would share a common goal, which would help to avoid the current problem identified at Zhejiang University (which has also been reported in other universities), that the curriculum is fragmented, consisting of whatever teachers can offer.

The University should clarify this core idea of *tongshi* education in curricular policies and documents, and hold seminars, workshops and conferences to promote effective communication between policymakers, academic staff members and students on the topic of the quality of *tongshi* education. Teachers should be trained and supported to develop skills in planning and delivering *tongshi* courses.

Second, effective communication should be built with students to convince them about the values and purposes of *tongshi* education. In particular, out-of-class support and advice should be provided to students to help them make personalised study and career plans. The *tongshi* education reform has granted a greater degree of student choice over what and when to learn so that students can individualise their study and career activities. However, it was found that many students, who have been used to learning following a prescribed schedule in primary and secondary school, lack the awareness or ability to make the most of the freedom given to them. The University now mainly relies on a limited number of political tutors to communicate with students, and to advise them on all the issues of campus life; they, however, are not qualified or professional advisors on academic and career development. As a result, many students reported a fragmented and ineffective learning experience of *tongshi* education. The University needs to put more effort and resources into building a professional group to give effective advice to students on study and career planning.

9.5 Epilogue

My inquiry into *tongshi* education started with a simple speculation that arose when I was myself an undergraduate student of Zhejiang University in 2008, where the *tongshi* education reform was in the early stages of implementation. Although the fact that *tongshi* education would allow me one year to decide the specific field of study for specialism education was one of the reasons why I applied to Zhejiang University at that time, I was troubled by the question of whether *tongshi* education was a piece of valuable experience or a waste of time. Similar doubts were still reported in this study by students today at Zhejiang University. Therefore, in the previous sections of this chapter, I argued that it is important for the administrators and teachers to explain the aims of *tongshi* education, and to convince students of its value.

I am not intending to suggest that students should be told how *tongshi* education could 'translate into better jobs' (Yeo 2015). Instead, I would like to share a passage quoted from one of the Confucian canonical texts (one of the

Four Books), which has been recurring to me frequently when I asked myself the meaning of *tongshi* education.

The way of great learning is a three-fold path: it lies in causing the light of one's inner moral force to shine forth, in bringing the people to a state of renewal, and in coming to rest in the fullest attainment of the good.

Great Learning (1.A)

(revised by the research based on the translation by Plaks and Yao
2003)

This passage is the opening paragraph in the *Great Learning*, or *Daxue*, written in around 200 BCE. Its name *daxue*, meaning learning at its highest level, is used in modern Chinese as the term for 'university'. The above excerpt could be used as an appropriate rhetoric for the idea of *tongshi* education which has been discussed in this thesis. That is, *tongshi* education is to support students in moral and intellectual development so that they can become self-reflective learners and responsible citizens, and thus individual and social wellbeing could be achieved. Although this short piece of text does not offer specific solutions for the various problems confronted by *tongshi* education today, it offers a simple but powerful answer to the question of what higher education should be about, which could be a starting point to inspire teachers and students to grow aware of the value of *tongshi* education.

I understand the *tongshi* education reform as a part of the wider cultural transformation taking place in China. By learning from both the Western liberal education and the Chinese 'great learning' (Shen 2017), the *tongshi* education reform could serve as an outstanding example of the communication and integration between the Eastern and Western traditions (Hayhoe 2001). I hope the continuous practices and increasing studies will contribute to a more open and free discussion on higher education in this global era, to cultivate the younger generation with critical and comprehensive understanding of the connections and conflicts between the traditional and the modern, the West and the East.

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Appendices

Appendix 2-A Statistics of Chinese higher education system: 1978-2016

Year	Number of HEIs*	Number of students enrolled (10 thousand) **	Number of postgraduate enrolled (10 thousand)	Number of faculty members (10 thousand) ***	GER *****
1978	598	40.1	1.1	21.0	1.6%
1979	633	27.5	8.1	24.0	2.1%
1980	675	28.1	3.6	25.0	2.2%
1981	704	27.9	9.4	25.0	2.2%
1982	715	31.5	1.1	29.0	2.0%
1983	805	39.1	1.6	30.0	2.1%
1984	902	47.5	2.3	32.0	2.4%
1985	1016	61.9	4.7	34.0	3.0%
1986	1054	57.2	4.1	37.0	3.6%
1987	1063	61.7	3.9	39.0	3.6%
1988	1075	67.0	3.6	39.0	3.7%
1989	1075	59.7	2.9	40.0	3.7%
1990	1075	60.9	3.0	39.0	3.5%
1991	1075	61.0	3.0	39.0	3.2%
1992	1053	75.4	3.3	39.0	3.5%
1993	1065	92.4	4.2	39.0	4.7%
1994	1080	90.0	5.1	40.0	5.7%
1995	1054	92.6	5.1	40.0	6.9%
1996	1032	96.6	5.9	40.0	8.0%
1997	1020	100.0	6.4	40.0	8.8%
1998	1022	108.4	7.3	41.0	9.8%
1999	1071	159.7	9.2	43.0	10.5%
2000	1041	220.6	12.9	46.0	11.2%
2001	1225	268.3	16.5	53.0	12.9%
2002	1396	320.5	20.3	62.0	15.0%
2003	1552	328.2	16.9	72.0	17.0%
2004	1731	447.3	32.6	86.0	19.0%
2005	1792	540.5	36.5	97.0	21.0%
2006	1867	546.1	39.8	118.0	22.0%
2007	1908	565.9	41.9	117.0	23.0%
2008	2263	607.7	44.6	123.3	23.3%
2009	2305	639.5	51.1	129.1	24.2%
2010	2358	661.8	53.8	134.0	26.5%
2011	2409	681.5	56.0	139.0	26.9%
2012	2442	688.8	59.0	143.7	30.0%
2013	2491	699.8	61.1	153.1	34.5%
2014	2529	721.4	62.1	156.6	37.5%
2015	2560	737.8	64.5	157.3	40.0%
2016	2596	748.6	66.7	160.2	42.7%

* HEIs= Higher education institutions, including universities (offering four-year undergraduate programmes) and colleges (offering three-year vocational programmes)

** The number of students enrolled includes undergraduate enrolment in universities and enrolment in colleges.

*** Number of faculty members refers to full-time faculty members in universities and colleges

**** Gross Enrolment Ratio (GER) of High Education is the ratio of students enrolled into universities and colleges to those who live in the country in the age group (18-22).

Note: The table of made according to statistics released by the Ministry of Education of the People's Republic of China, on the website http://www.moe.edu.cn/s78/A03/moe_560/jytjsj_2016/. Retrieved on January 2017.

Appendix 2-B Sources of revenue for Chinese higher education: 1996-2012

Year	State and local appropriations (%)	Tuitions and fees (%)	Private donations (%)	Other revenues (%)*	Total (million**)
1978	95.9	0	0	4.1	No records
1985	91.5	0	0	8.5	No records
1992	81.8	4.6	0.8	12.8	No records
1997	78.43	14.85	1.5	5.22	3.9
1998	65.13	13.35	2.09	19.43	5.5
1999	62.68	17.12	2.29	17.77	7.1
2000	62.68	17.12	2.29	17.77	7.1
2001	55.1	24.59	1.5	18.8	11.5
2002	51.7	26.85	1.91	19.53	14.5
2003	49.62	29.85	1.51	19.01	16.9
2004	48.07	32.1	1.07	18.76	20.2
2005	46.02	33.41	0.89	19.67	23.7
2006	44.49	33.03	0.84	21.64	25.4
2007	44.08	33.74	0.75	21.43	36.3
2008	47.59	33.68	0.68	18.05	42.1
2009	48.82	33.21	0.56	17.41	46.4
2010	52.78	30.49	0.54	16.19	55.0
2011	58.48	26.34	0.63	14.55	68.9
2012	58.34	26.53	0.62	14.51	70.2

* Other revenues mainly include state and local contracts, auxiliary enterprises, hospitals, and educational services such as open learning programmes.

** In Chinese yuan. I have not been able to find reliable records for the exchange rate between British Pound and Chinese yuan in history. Therefore, the exchange rate between Chinese *yuan* and US dollars is used here instead. The rate has been changing since the late 1970s when the cross-border trade reopened. According to Chinese Statistical Yearbooks by the National Bureau of Statistics of the People's Republic of China, in 1981, 100 US dollar =170.5 Chinese *yuan*. The exchange rate kept rising and reached the highest point in 1994, 100 US dollar =861.9 Chinese *yuan*. In 2010, the rate is 100 US dollar =677.0 Chinese *yuan*.

Note: The table of made according to statistics released by the National Bureau of Statistics of the People's Republic of China, on the website <http://www.stats.gov.cn/tjsj/ndsj/2016/indexch.htm>. Retrieved on January 2017

Appendix 4-A The Email to the Undergraduate Administrative Department (UAD) of Zhejiang University for permission of fieldwork (English translation)

Dear Sir/Madam,

My name is Qijuan Shen and I am a PhD candidate in the Moray House School of Education in the University of Edinburgh, funded by the China Scholarship Council. I am doing my doctoral research to examine *tongshi* education in Zhejiang University. As a former student of Zhejiang University, with experiences of *tongshi* education myself, I have always been wondering about the influences of *tongshi* education on my own and my peers' development. Now as a PhD student, I am inspired to explore the rationale and implications of *tongshi* education, with the hope to contribute to a better understanding and practice of *tongshi* education. I would really appreciate your help by allowing me to conduct the research at Zhejiang University.

This research is expected to last from the end of November 2014, to the end of this semester, January 2015. I will pay visits to the University archive to collect relevant policy documents, and interview policymakers, academic staff members, student-tutors of *tongshi* courses, political tutors and undergraduate students. With your agreement, the name of Zhejiang University will be present in the reports. I will provide a piece of report to the University when I finish this research which summaries the findings and suggestions drawn from the study.

If you agree to let me conduct the research in the school, please sign your name on the consent form and return it to me.

If you want to know more about the research, you could contact me by calling xxx or emailing 11203019@zju.edu.cn at any time.

Many thanks for your support.

Yours sincerely

Qijuan Shen

I agree to let the researcher conduct the research in Zhejiang University.

- I understand that the University could stop participating in this research at any stage.
- I allow the researcher to read and copy relevant policy documents of *tongshi* education.
- I understand that the name of Zhejiang University will be indicated in reports.

Signature: _____

Date: : _____

Appendix 4-B Informed consent letters (English translation)

Dear Professor/Dr /Mr./Mrs./Ms./Friend,

My name is Qijuan Shen and I am a PhD candidate in the Moray House School of Education in the University of Edinburgh, funded by the China Scholarship Council. I am doing my doctoral research to examine *tongshi* education in Zhejiang University. As a former student of Zhejiang University, with experiences of *tongshi* education, I have always been wondering about the influences of *tongshi* education on my own and my peers' development. Now as a PhD student and a researcher in education, I am inspired to explore the rationale and implications of *tongshi* education, with a hope to contribute to a better understanding and practice of *tongshi* education.

I would like to invite you to take part in my interview, where you would be asked several questions about your experience and understanding of *tongshi* education. The interview is expected to take around half an hour. With your permission, I will record the interview because I need to write reports on that. The interview will be confidential and the only people I may share them with are my supervisors (in English). Your name will be anonymous in my thesis, the report offered to the University, and any other work based on the interviews. I will use an ID number instead.

If you would like to participate in this research, please sign your name on the consent form and return it to me.

If you want to know more about the research, you could contact me by calling xxx or emailing 11203019@zju.edu.cn at any time.

Many thanks for your support.

Yours sincerely

Qijuan Shen

I would like to participate in this research.

- I understand that I could leave the research at any point and I do not have to answer the researcher's questions during the interview.
- I agree that the interview can be recorded.
- I understand that the interview will be confidential.
- I understand that I will not be identified in reports.

Signature: _____

Date: _____

Appendix 4-C Interviews and participants of this study

4-C-1 Interviews with administrative leaders of Zhejiang University

ID No.	Gender	Date & duration
A01	Female	08.12.2014, 60mins
A02	Male	24.12.2014, 50mins
A03	Male	13.01.2015, 60mins
<p style="text-align: center;">Interview questions for policymakers</p> <p>1. Can you describe the goals, strategies and processes of the <i>tongshi</i> education reform at Zhejiang University?</p> <p>2. How would you describe the background of the <i>tongshi</i> education reform at Zhejiang University, including contextual factors at the global, national, and institutional levels? What do you think are the key driving factors for the reform?</p> <p>3. How do you understand the idea of <i>tongshi</i> education?</p> <p>4. How much progress of the reform do you think has been achieved? What are the major challenges, difficulties or problems of the reform?</p> <p>5. Where do you think the reform will head for? What do you think are the useful experience that could be learnt by other universities?</p> <p>6. What is the role of Undergraduate Administrative Department (UAD) of Zhejiang University in the <i>tonshi</i> education reform?</p> <p>6. What do you think are the features of <i>tongshi</i> education at Zhejiang University, compared to <i>tongshi</i> education at other Chinese Universities, and the curricula in many Western universities?</p>		

4-C-2 Interviews with academic staff members of Zhejiang University

ID No.	Gender & title	Department	Subcategory of <i>tongshi</i> course	Date & duration
TP 01	Male Professor	Marxism studies	Compulsive (physical and military education)	01.12.2014 43 minutes
TA02	Female Associate Professor	Psychology	Elective (science and research)	10.12.2014 31mins
TP03	Male Professor	Literature	Elective (arts and humanities)	12.12.2014 37mins
TL04	Female Lecturer	English	Compulsory (English)	15.12.2014 55mins
TP05	Male Professor	Life science	Elective (science and research)	17.12.2014 45mins
TP06	Female Professor	Engineering	Elective (technology and design)	18.12.2014 38mins
TL07	Female Lecturer	Career Plan	Elective (communication skills and leadership)	19.12.2014 33 minutes
TL08	Female Lecturer	Marxism studies	Compulsive (political-ideological education)	24.12.2014 61 minutes
TL09	Male Professor	Philosophy	Elective (arts and humanities)	30.12.2014 30mins
TP10	Male Professor	Chemistry	Elective (science and research)	5.1.2014 35mins
TP11	Male Professor	Physics	Lower-division	5.1.2014 30mins
TP12	Male Professor	Mathematics	Elective (science and research)	06.01.2015 39mins
TP13	Male Professor	History	Elective (arts and humanities)	14.01.2015 35mins
TL14	Male Lecturer	Marxism studies	Compulsive (political-ideological education)	19.01.2015 60 minutes
TA15	Female Associate Professor	Media studies	Lower-division	19.01.2015 32mins
TP16	Male Professor	Genetics	Elective (science and research)	23.1.2015 31mins
TP17	Male Professor	Engineering	Lower-division	22.01.2015 30mins
TP18	Male Professor	Sociology	Elective (economy and society)	25.01.2015 36mins
TP19_M	Male Professor	Mathematics	Lower-division	10.03.2015
TP20_M	Male Professor	Philosophy	Elective (arts and humanities)	11.03.2015
TP21_M	Male Professor	Mathematics	Lower-division	14.03.2015

Interview questions for academic staff members

1. How do you understand the meaning of *tongshi* education?
2. What do you think is the relationship between *tongshi* education and specialism education?

2. When did you start to teach a *tongshi* courses? Why did you decide to teach the course?
3. What are key considerations when you design the course in terms of its objective, content, pedagogy and assessment? Why do you think those elements are important? Is there difference between teaching *tongshi* course and teaching specialism course? If so, what is it?
4. What are the challenges in teaching *tongshi* courses according to your experience?
4. What are the impacts of the *tongshi* education reform on you work?
5. Do you have any suggestions for *tongshi* education at Zhejiang University? Any suggestions for the undergraduate curriculum in this research-intensive university?

4-C-3 Interviews with student-tutors of Zhejiang University

ID No.	Gender	Introduction	Data & duration
ST01	Female	<p>A 2nd-year PhD student in the department of history;</p> <p>Being a student-tutor for a <i>tongshi</i> elective course (history and culture) for two years</p> <p>Was an undergraduate student of Zhejiang University</p>	<p>04.12.2014</p> <p>58 minutes</p>
ST02	Male	<p>A third-year PhD student in the department of philosophy;</p> <p>Being the student-tutor for a <i>tongshi</i> elective course (history and culture) for one year</p> <p>Was an undergraduate student of Zhejiang University</p>	<p>07.12.2014</p> <p>67 minutes</p>
<p style="text-align: center;">Interview questions for student-tutors</p> <p>1. When did you start to become a student-tutor? Can you talk about your experience as a student-tutor? How do you work with teachers and students?</p> <p>2. What do you think is the difference between <i>tongshi</i> courses and specialism courses in terms of the practice of teaching and learning?</p> <p>3. How do you understand the meaning of <i>tongshi</i> education? How do you understand the relationship between <i>tongshi</i> education and specialism education?</p> <p>4. Do you have any suggestions for the policymakers, teachers, and students for their practice of <i>tongshi</i> education?</p> <p>5. What do you think is the most important thing you and the students have gained in Zhejiang University?</p>			

4-C-4 Interviews with political tutors at Zhejiang University

ID No.	Gender	Introduction	Data & Duration
PT01	Male	Being a political tutor for five years Was an undergraduate student at Zhejiang University (education)	16.12.2014 50 minutes
PT02	Male	Being a political tutor for seven years Finished his undergraduate and postgraduate at Zhejiang University (agricultural studies)	04.12.2014 72 minutes
<p style="text-align: center;">Interview questions for political tutors</p> <p>1. When did you started to become a political tutor? Can you describe your work experience as a political tutor?</p> <p>2. According to your experience, what are the main challenges for students (especially in their first two years)?</p> <p>3. Compared with you own experience as an undergraduate student at this university years ago, what do you think are the changes achieved by the <i>tongshi</i> education reform?</p> <p>3. How do you understand the meaning of <i>tongshi</i> education?</p> <p>4. Do you have any suggestions for the policymakers, teachers, and students for their practice of <i>tongshi</i> education?</p>			

Appendix 4-C-5 Interviews with undergraduate students at Zhejiang University

Interviews	ID number	Gender	Year	Major	Date and time
Individual 1	S3s01	F	3	Law	10.12.2012 36 minutes
Group 1	S4g01	M	4	Economy	Group interview 27.12.2014 69 minutes
	S4g02	F	4	Automation engineering	
	S2g03	M	2	Informatics	
	S2g04	M	2	Biomedical engineering	
Group 2	S4g05	F	4	Literacy studies	Group interview 03.01.2015 80 minutes
	S3g06	F	3	Management	
	S3g07	F	3	Medical studies	
	S4g08	M	4	Mathematics	
Individual 2	S4s02	F	4	History	04.01.2015 40 minutes
Individual 3	S3s03	M	3	Optical engineering	10.01.2015 50 minutes
Individual 4	S2s04	F	2	Science	10.01.2015 43 minutes

Interview questions for undergraduate students

1. Can you tell me about your learning experience of *tongshi* courses? What do you think makes a good/bad *tongshi* course?
2. What do you think is the difference in learning *tongshi* courses and specialism courses?
3. How do you choose *tongshi* courses? What are the factors you would consider when you make decision of which *tongshi* courses to choose?
4. How would you describe your first two-year experience in general? What do you think you have gained, and what are the challenges?
5. How do you understand the meaning of *tongshi* education? How do you understand the relationship between *tongshi* education and specialism education?
6. Do you have any suggestions for the policymakers and teachers?

Appendix 4-D A piece of translated interview transcript and initial coding

<p>Interviewee: TP05, male, professor, life science, taught a <i>tongshi</i> elective course (science and research)</p> <p>Date and duration of the interview: 17.12.2014; 45mins</p> <p>Where: the interviewee's office</p>		
Q (Qijuan)	<p>Nice to meet you, Professor [anonymous]*. I am Qijuan Shen.</p> <p>Great thanks for agreeing to participate in the interview.</p>	
TP05	<p>Hello, nice to meet you. Take a seat please. I have just finished a meeting with some of my colleagues. Hmm... Just a second [was texting someone].</p>	
Q	<p>[Sitting down] Thank you. Take your time please.</p> <p>[Waited for around one minute. In the meantime, I took out the prepared interview question list and consent form⁶⁹, and was ready to turn on the recorder.]</p>	
TP05	<p>[Finished texting] Okay...Sorry for this. So I was told that you are here to ask about my course [<i>the name of the course</i>].</p>	
Q	<p>Yes... Sorry, are you ok if I turn on the recorder, professor?</p> <p>Here is the consent form, if you could take a look and sign it for me. It is the same with the one I sent you in the email a few days ago. Can you sign on it if you think it is fine? Here is the interview question list, though the questions are very general [passed the two documents].</p>	
TP05	<p>[Took the consent form and signed] Sure.</p>	
Q	<p>Thank you [turned on the recorder]. ... This interview is about the <i>tongshi</i> course you and your team have developed. I also</p>	

⁶⁹ I have sent the digital copy via email. But just in case, I would bring a printed copy in every interview.

	want to ask about your experiences and understanding of <i>tongshi</i> education in general. I understand you are very busy. Is it okay for you that the interview would take about one hour ⁷⁰ ?	
TP05	Well... one hour or so should be ok with me.	
Q	Thank you! Can we start with your understanding of the idea of <i>tongshi</i> education, generally?	
TP05	<i>Tongshi</i> education...yes. It is a term quite popular nowadays. It was a new concept to me, and to many elder teachers at University, I believe. I would never have considered a lot about it if I hadn't teach a <i>tongshi</i> course. Although I had seen or heard of it several times at university or department meetings. But now, I think I can say something about it since my colleagues and I have been teaching the course for several years, huh... Teaching this course is a very valuable piece of experience to me. I think the one of the most important things is that when facing the students in my class, young and new, I have to consider what my course will bring to them. Many of them may not major in life science. Although I always hope that more students can be attracted into this discipline after taking my course, ha-ha.	Understanding of <i>tongshi</i> A new concept for teachers Different teaching experience Motive for teaching
Q	Yes. When I was an undergraduate student years ago, I always asked myself why I was learning these stuff.	
TP05	Yes, because it is not your major. So the emphasis should not be put only on the mastery of specialism knowledge. Although	How to develop a <i>tongshi</i> course

⁷⁰ I sent text message to the interviewee the day before the interview, saying that the interview was expected to be 40 to 60 minutes. He replied with an 'ok'. I assumed that he was aware of the time the interview was going to take. I mentioned again now to reaffirm.

	<p>it is also very important. It is an introduction course, which means that the contents are relatively simple and easy to learn. But here at university, and a quite good one, where very talented students are recruited, the students should be provided with advanced knowledge. I think the basic principle of <i>tongshi</i> education at the University is that to enlarge the knowledge base of student and to enhance their further development including specialism learning and particularly, abilities such as creativity, and learn how to learn, and personal qualities of course. It concerns the all-round development of student.</p>	<p>Depth in content</p> <p>The meaning of <i>tongshi</i> education</p> <p>Relationship with specialism education</p>
Q	<p>Indeed. I have read some university documents which express similar ideas. So can we talk about how your course would contribute to these goals? I heard that the course has enjoyed very good reputation among students as a <i>tongshi</i> course and gained a lot of supports from the University.</p>	
TP05	<p>Ha-ha, you are right. I am proud of that. Our course is among the several courses which were selected as 'core course'. And that is different from ordinary <i>tongshi</i> courses. It means higher standard and quality.</p>	'Core course'
Q	<p>Yes. I have seen several case studies of some other universities saying that the quality of teaching and learning has become a big problem in <i>tongshi</i> education reform. It is reported that faculty members and students don't pay much attention to <i>tongshi</i> education and regard it as not important or even as burden. Am I right saying that the <i>tongshi</i> core course here is a strategy to promote the quality of teaching and learning?</p>	

TP05	Yes. We have been making efforts on that... Our course is selected as a core <i>tongshi</i> course exactly because of its high quality. The course itself actually has a longer history than <i>tongshi</i> education reform at the University. It was, if my memory serves, started from the year 1996.	History of the course (before becoming a <i>tongshi</i> course)
Q	Wow, that's a long history.	
TP05	Yes, yes. It is a long story. It was even before the four campuses of the University were merged. We, my colleague and I, started to open the course to students whose major is not life science. We at that time also designed our own textbooks.	How the course was developed (before the reform)
Q	So that is before the idea of <i>tongshi</i> education was put forward at the University. How did it start? Were there any other similar courses like this one at that time? It assume it was because of the national scheme, Education for Cultural Qualities, though I am not sure.	
TP05	<p>Hmm...probably. I am not able to recall all the details now. But I think you are right, because your major is education, ha-ha.</p> <p>Anyway we started this course, at Yuquan Campus⁷¹. The course went so well that it was chosen as honour course⁷² later. We have always been exploring the proper way of teaching and I think what we have been doing is very meaningful. You asked about my understanding of <i>tongshi</i> education just now. To me, it firstly means that you have to design the course well for all the students, who do not major life science. It should involve proper breadth in its contents so that student can have a general understanding of the</p>	<p>How the course was developed</p> <p>The idea of <i>tongshi</i> education</p>

⁷¹ One campus before the University was emerged.

⁷² A type of special courses provided to elite students. Should be explained with more details

	discipline. Secondly, it means good teaching. For teacher it is a more difficult task to teach <i>tongshi</i> course, when facing student with various backgrounds. I think this makes us to think about education and teaching at university.	
Q	That's interesting. Can we talk a little bit more following this? Can you tell me to what extent do you think the current course [<i>the name of the course</i>] as <i>tongshi</i> course is different from the previous course a decade ago?	
TP05	Um, the difference... It has been more than a decade since the course was started. It has been changing and developing, towards a higher standard, I would say. I would also say that the context is so different now. The number of students has increased so much, and the development of economy and technique. People's ideas and views are changing, as well as other factors such as internationalisation. The university itself also saw dramatic changes.	How the course was developed Changes in campus (background of <i>tongshi</i> education)
Q	I was also wondering how the specialised knowledge and skills of life science could contribute to the idea <i>tongshi</i> education. In other words, what makes life science a proper subject as <i>tongshi</i> course? Is it about the nature of the discipline or the way you teach it?	
TP05	Both, I think. Life science is very closely related to many disciplines and social issues, ethical considerations and philosophical thinking. Therefore, it is easier to involve students from various backgrounds. We now have very good discussion session in our course which is popular with students, it is a very good proof. Of course, teaching skills are very important. As I	Cross-disciplinary learning in <i>tongshi</i> education

	mentioned earlier, we have been developing these for a long time.	
Q	I have seen your course syllabus, and have a general idea of how the course is organized. I'd like to take this chance to know more about the course arrangement, especially the reasons for your decisions. For example, how do you develop the goals and strategies of teaching, what are the principles of selecting course contents, what are the differences of this <i>tongshi</i> course from specialism course, and what is your experiences of being a teacher and convenor of the course?	
TP05	It is a very long process before the course forms its current shape, and it involves a lot of teamwork. It was basically me and another professor, and later some young colleagues joined us. Selection and organization of course contents is very basic and vital. Let me see... um, we now have already developed a quite reasonable outline and syllabus of the course. It was based on what we have done in more than a decade, in accordance with the policies and requirements of the University, and the development in the discipline, and social needs. To be honest, the selection and organization of course contents is very challenging. Because the discipline itself involves very different strands of research and areas. In fact, it is not just at our University but among many higher education institutions. The issue is quite contestable and has been discussed for a long time. According to my knowledge, different universities vary in the way of teaching the discipline. The choice would be made based on the characteristics of the university, faculty members and teaching goals. To put it briefly,	How to develop and teach <i>tongshi</i> courses Concerns of course development (course content)

	<p>the first one I call it 'spot-style'. It focuses exclusively on certain specific topics in the discipline and introduces the cutting-edge developments while the systematic picture of knowledge, and the linkage among the 'spots' are set aside. The second is more like a whole 'net' . It tries to impart to students a general and completed picture of the basic topics and areas within this discipline, thus involving much more breadth but perhaps not enough depth. And the third one, which we have been exploring here, tries to combine the aforementioned two models. We find it is doable though we have also been confronted with several problems, like the limited amount of time on the student's timetable. And one single teacher can never handle this. It is very vital to have a good teaching team.</p>	
Q	<p>Sorry but can you explain more about this? Why the third model and what are the problems?</p>	
TP05	<p>I was talking about the characteristics of the discipline. It contains so many different areas that it is difficult to coordinate them all in one course. For specialism education, these contents would be divided into several courses. But for <i>tongshi</i> education, it is just one course. On one hand, we try to present the patchwork of the discipline, allowing student touch every basic topics. On the other hand, we want to introduce the recent development in the important areas. Our solution is to divide the course into two sections, micro-biology and macro-biology. The former is based on areas such as biotechnology while the latter is the traditional biology. The contents we now have are quite interdisciplinary. The micro section puts more concentration on biotechnology, interlinked to sciences such as</p>	<p>Difference between a tongshi course and a specialism course</p>

	<p>chemistry, and involves a lot of cutting-edge scientific and technical development in biomaterial, bionics (biomimetic). In contrast, the macro section looks at various species on the Earth and environment they reside in, involving the more traditional topics and areas connected with zoology, systems biology... also linked quite a lot to humanities and social sciences. I believe the model we have been developing fits well with students in comprehensive university. It is interdisciplinary and make the most of the expertise of the faculty members. It is exactly because of this we build up a teaching team. Since one teacher can hardly handle all the contents.</p>	
Q	<p>I also noticed that there are three parallel classes given by different groups of teachers, under the same name [anonymous].</p>	
TP05	<p>Yes. At first, it was just me and Professor [anonymous]. Our teaching was quite successful and the course was popular with students. Because there were not enough qualified <i>tongshi</i> course, therefore we started to think about build a team for the course so it would be available to more students. On the one hand, we can run more courses at same time so that more students can take the course. On the other hand, young teachers can get the chance to teach this course so that the course itself can be updated. We can build up a powerful community with the participation of those young teachers and researchers. Of course, it is very important to cooperate among several different teachers, to make the teaching and learning process consistent, avoiding fragmentation. The team we have now is quite good, we ask the teachers to follow certain</p>	<p>Lacking good <i>tongshi</i> courses</p>

	common requirements and meanwhile allowing individual teacher to exert his/her expertise and academic interest in the class.	
Q	That sounds great. I also noticed that there is a weekly discussion section for this course. Can we talk more about it?	
TP05	<p>One of the purposes is to promote an effective, active way of teaching and learning of <i>tongshi</i> education. The weekly discussion section is a very important strategy. I think it has been running quite well. We now have developed a series of topics that can be grouped into four broad themes. The selection of discussion topics is not arbitrary. We try to make student use what they learn from the course and extensive reading to analyse relevant issues. For example, I think it is important to connect <i>tongshi</i> education with specialism education. I would purposefully select materials and cases where students could make connection with their major... For instance, once we were discussing about epidemic control, so I used the case of the SARS outbreak in 2003 , which involves lots of aspects... I first gave a lecture, then the student was encouraged to analyse the case from the disciplinary perspective of his or her specialism background. I was very glad to see that different disciplines were brought together to contribute to the discussion, such as medical study, management, media study, computer studies, and international relationship.</p>	<p>Student-led discussion in class</p> <p>How to select topics for discussion</p> <p>Relationship with specialism education</p> <p>Cross-disciplinary learning</p>
Q	In this way the student participates in the <i>tongshi</i> class as a 'specialist' of his or her own disciplinary area.	

TP05	<p>Indeed. The fact that students are from different academic backgrounds is not a challenge, but an opportunity to bring together different disciplines on one topic. But life science is a proper area for topic-based, student-led discussion because the topics can be closely related to real life issues and social news, a lot of instances can be found. It is also closely linked to philosophy and ethics. The area is full of interesting, unsettled and interesting debates. And our students are very talented and are qualified to participate such debates. We intend to use presentation to evoke various issues and divergent thinking. The discussion thus can go deeper and broader. For students, it is mind-broadening because they are learning from each other... I think this strategy could promote learning outcomes of both specialism education and tongshi education.</p>	Cross-disciplinary learning
Q	<p>It seems that on one hand, the themes of the topics broaden the horizon of students, and on the other hand, discussion is a useful tool to get students to participate in the class.</p>	
TP05	<p>Indeed. Yes. We are now talking about transformation from teaching-centred model to learning-centred model. I think that makes sense and is very important. I think the key is to put student at the centre. It is about what they learn rather than what we teach. Our course is one way to explore the changes in practice. Lecture is the most common way of teaching for a long period. It is the teacher stands in the front of the classroom, writing on the blackboard or more increasingly, clicking on the PPT, but with very limited communication with students. Students were either taking notes of what was present, or worse, mind wandering. The classroom was dull and not</p>	Student-centred learning

	<p>illuminating. It was, to me, not a proper place for sharing and contrasting ideas and experiences. Without discussion or debate, it is difficult for deep understandings and for new ideas to emerge. Knowledge goes one way from the teacher to the students, ignorant of students' doubts and feelings. Communication and links among students are absent. Of course they would have certain homework. Yet the educational function of homework has been reduced since the mistakes students made or brilliant ideas emerged are not communicated to the whole class. Now we add a discussion section after the lecture, so that students have a chance to discuss what is imparted in the lecture. It is an effective combination. We have been trying to transform the inert classroom to inspiring, creative, dynamic place where new ideas can be motivated.</p>	
Q	<p>Sorry but I have one question. During my undergraduate days, we didn't have <i>tongshi</i> core course, yet we did have similar activities like student-led oral presentations and follow-up discussions, both in <i>tongshi</i> courses and specialism courses. So I was wondering what is new about the separate discussion section. Is it just that now the section is allocated a separate time slot so that there is more time for it?</p>	
TP05	<p>Um. Well, more than that. I think this is exactly the change we are making. Yes time for discussion increases, and more importantly, it is formalized in <i>tongshi</i> core course. Although student-led presentation had been used in many classes before, it is still absent in many <i>tongshi</i> course classes because of the large class size and diversity of students. And what we</p>	

	<p>are doing now is to promote the practice of student-led discussion section in <i>tongshi</i> course. <i>Tongshi</i> core courses are exemplar showing that discussion is an appropriate way of teaching and should and can be widely used in <i>tongshi</i> courses. Secondly, we put more emphasise on discussion rather than oral presentation, the latter is usually inclined to become mere performance. As a student, I guess you can understand that, right?</p>	
Q	<p>Yes, indeed. Usually we planned what we were going to present in detail and acted it in front of the class.</p>	
TP05	<p>Although presentation itself is also very important and a comprehensive training, the discussion, or debate, focuses more on real communication. There is less communication in presentation, if you understand what I mean. I made the judgement based on my own observation. Yes students prepare well for the presentation. But that is all. The remaining students as audience rarely participate actively, except very few of them. But now we require the whole class to be involved. They will be judged by the teacher or tutor of their performance in the discussion section which will partly contribute to their grade in assessment. But more importantly, the class size of discussion section is much smaller and makes a better environment for communication. The discussion is not to persuade someone, but to provide different perspectives and to share ideas. I can see student enjoying the discussion when they use knowledge and logic to generate intelligent arguments. I see the development of rationality and mental power during the process. In the discussion section, it is the</p>	<p>How to promote student engagement in class</p>

	students that lead the classroom. What is more, the discussions and debates are not limited by what was originally taught in the classroom. Sometimes I was really impressed that student have a lot of readings and can raise the debate to a very advanced level.	
Q	Yes. It does make sense.	
TP05	I think the discussion section really makes difference in teaching. By letting students take charge of the classroom, it does not mean that we teachers can have a rest. On the contrary, it will need more skills and preparation to keep the discussion on the right track in the meanwhile avoiding too much control. We are exploring the proper strategies. The control of teacher on the discussion section has been gradually reduced. I would make comments when students make mistakes about the specific knowledge. But basically, it is the student-tutor and undergraduate students themselves take charge of, facilitate and organize the classroom. To prepare for the presentation and discussion is a comprehensive learning task. Students would be divided into small groups and assigned with different topics. They will have to search for articles, studies, reports, news, etc. Their products of work, made into PPT, would be upload to the course website where other students can download and have a look. Student have to collaborate during the process.	
Q	So is it what is meant by 'student-centered'?	
TP05	Yes, and students can benefit from such training and practice. In this way, they are required to spend more efforts on learning since the discussion is based on a lot of readings. We decide	Intensive reading

	<p>that to prepare for one discussion section⁷³, students will need to spend around 180 minute on reading. Of course students who are going to present would do more work. And we have provided a reading list contains various resources, including academic literature of life science, disciplinary classics such as <i>On the Origin of Species by Means of Natural Selection</i> by Charles Darwin, and we select the Chinese translated version which was published by the Peking University Press, because the introduction part by a Chinese professor is great. To promote criticality, we also recommended students to read some books and online articles whose ideas are against the mainstream of the academia and can be very controversial. For example, <i>Icons of Evolution</i> by Jonathan Wells. The extensive reading list is not limited by works of biologists. Sometimes we ask students to read relevant works by sociologist and other books such as <i>Out of Control: The New Biology of Machines, Social Systems, and the Economic World</i> by Kevin Kelly. In this way students can touch different ideas, and made comparison and judgements themselves. Some of them told me that they were so excited to read about various theories, hypotheses and debates about the nature of life and evolution which is far more complicated than what they had learnt in high school.</p>	
Q	<p>Yes it sounds attractive and interesting. Now I would like return to one point you made earlier, about faculty members' academic expertise and the organization of the course. Because, as you can see from the interview question list, I want</p>	

⁷³ One discussion lasts for 90 minutes, in this course it is divided into two parts: usually 30 minutes for presentation and 60 for discussion.

	to look at your opinions of the relationship of research and teaching& learning in the University as a research university.	
TP05	<p>Yes I think it is the most effective way that teachers combine their research with teaching. Teachers' specialists should be used to enhance the quality of the course, to provide students with the most updated, new and proper contents and methodology of the discipline. It is doable for the teachers and more importantly, we want students to become familiar with research as early as possible. The course requires student to read academic articles and research publications so that they can be informed of the recent development of the area. Of course the <i>tongshi</i> course would not train students as specialism courses do, but still, we do not want to cut the linkage. After all, this is what faculty members are doing. Research training is valuable to promote student's thinking habits. And honestly, we want to help student prepare for their postgraduate study. I know that almost fifty percent of the undergraduate students will constitute to study as postgraduate students, like you. Particularly, we encourage student to integrate their specialism learning, or learning interest with what they have learnt from the course</p>	Teaching-research link in the class of <i>tongshi</i> course
Q	<p>Yes, I can understand that. You have given me a very good description of your experience of <i>tongshi</i> education teaching. Would you like to talk about the proper direction you think the curriculum reform should go, or generally, what do you think is ideal university education at a research-intensive university like this University?</p>	

TP05	<p>I always like to talk about those great entrepreneur like Jobs, Larry Ellison. They are great innovators and both dropouts of university. If they can be so successful while a lot of graduates not, I think we have to ask why. I think, at least, that university education should be more than just transmitting knowledge and skills, and that students should not imitate teachers, otherwise the development of student is at a very low level. In my opinion, university education nowadays should be aimed at the promotion of the mental power and creativity of student. You have to teach them how to think creatively. University education provides certain disciplinary paradigm. But over-specialisation would limit the horizon of student. That is why <i>tongshi</i> education is so important. For sure it is indeed very difficult. If the teacher doesn't design the course well, or doesn't have proper teaching skills, <i>tongshi</i> education can be a waste of time. So that is why the <i>tongshi</i> core courses were set up. Therefore good teachers, ample recourses and proper policy supports are necessary to explore an effective way of teaching <i>tongshi</i> course so that student can benefit from it.</p>	The aim of university education
Q	<p>That's inspiring. And is there any issue that worries you, including difficulty you confront in teaching?</p>	
TP05	<p>I find the situation is generally very positive. And the University seems to put much emphasis on quality teaching. But if talk about worry... I sometimes would recall my undergraduate days. There were far less undergraduate students and the link between teacher and student was much stronger. We as students had a lot of communication with our teachers both in and out of class. And we were quite intimate with each other.</p>	<p>Impacts of the <i>tongshi</i> education reform</p> <p>Challenges in teaching</p> <p>Reduced teacher-student communication</p>

	<p>But nowadays both teachers and students are seemed to be very busy, occupied with lots of business. Of course things have been changed now. And usually the class size is so large. With over one hundred students in one class, it is actually very difficult for the teacher to even recognise them, given the fact that <i>tongshi</i> course is based on a weekly base and that usually the teacher and students come from different departments and campuses. I am worried about the lack of communication. To be honest, I could not recognize the students in my <i>tongshi</i> class. It is just impossible. But I would try my best to enhance the link is to talk with student through email. And I would give my private phone number to all the students so that they can contact with me if they want to. I try to make myself friend to students, not just a teacher, who is just transferring knowledge. One of incidents I keep thinking about is that last year a student sent me an e-mail, mentioning a casual talk between us after the final examination. She said that I was the first teacher that talked to her face-to-face since she came to university. I was so astonished about that, you know. That was the third semester and no teacher had made such conversation! We as university teacher should be ashamed and sorry about that. <i>Tongshi</i> education is beneficial but from that point the University should do something. We should work on that.</p>	
Q	<p>Yes, indeed. I also got a sense of that, too! Especially during the first two years, students are left alone and can never see a teacher if he/she doesn't attend a class. That is really isolated.</p>	
TP05	<p>Yes. You should report that so the University will know, ha-ha.</p>	

	Yes I will... Ok, that should be all of it. Thank you so much Professor FP01. It is really nice to talk and listen to you.	
TP05	OK.	
Q	I would transcript this interview later, and send you a copy if you like so you can see whether it is accurate.	
TP05	Yes no problem. You are very welcome to contact if you have any further questions. I hope you going well with your research. Hope it would provide us some suggestions.	
Q	I hope so. Thank you again. See you.	
TP05	See you.	

* For confidentiality, I used [anonymous] to cover the specific names of people or course mentioned in the interview.

Appendix 5-A Colleges, schools, and departments of Zhejiang University

Colleges	Schools	Departments
The College of the Humanities	The School of the Humanities (x)*	5 Departments
	The School of Foreign Languages, Culture and International Communication (z)	3 Departments
	The School of Media and International Culture (x)	3 Departments
The College of Social Sciences	The School of Economics (z)	4 Departments
	The Guanghua School of Law (zh)	1 Department
	The School of Education (x)	5 Departments
	The School of Management (z)	7 Departments
	The School of Public Management (y)	3 Departments
	The School of Marxism Studies (x)	1 Department
The College of Science	The School of Mathematics (x)	1 Department
	The school of Physics (y)	1 Department
	The School of Chemistry (x)	1 Department
	The School of Earth Science (y)	1 Department
	The School of Psychology and Behavioural Science (x)	1 Department
The College of Engineering	The School of Mechanical Engineering (y)	1 Department
	The School of Materials Science (y)	1 Department
	The School of Energy Engineering (y)	1 Department
	The School of Electrical Engineering (y)	3 Departments
	The School of Architectural engineering (y)	4 Departments
	The School of Chemical and Biological Engineering (y)	1 Department
	The School of Oceanography (y)	2 Departments
	The School of Aerospace Engineering (y)	2 Departments
	The Department of Polymer Science and Engineering (y)	1 Department
The College of Informatics	The School of Optoelectronics (y)	1 Department
	The School of Information Science and Electronic Engineering (y)	1 Department
	The School of Control Science and Engineering (y)	1 Department
	The School of Computer science and Technology (y)	3 Departments
	The School of Software Technology (y)	1 Department
	The School of Biomedical engineering (y)	2 Departments
	The School of Life Sciences (h)	2 Departments

The College of Agriculture, Environment and Life Sciences	The School of Biological Systems Engineering and Food Science (<i>h</i>)	2 Departments
	The School of Environmental and Resource Sciences (<i>h</i>)	3 Departments
	The School of Agriculture and Biotechnology (<i>h</i>)	5 Departments
	The School of Animal Science (<i>h</i>)	3 Departments
The College of Medicine and Pharmacy	The School of Medicine (<i>z</i>)	6 Departments
	The School of Pharmacy (<i>z</i>)	2 Departments

*As was mentioned in the main text (Section 5.2.4), Zhejiang University now encompasses five campuses. The blanketed letters in this column are to mark which campus the specific school is based on.

(*h*): the Huajiachi Campus

(*x*): the Xixi Campus

(*y*): the Yuquan Campus

(*z*): the Zijingang Campus

(*zh*): the Zhijiang Campus

Appendix 5-B The subgroups of *tongshi* courses at Zhejiang University

<i>Tongshi</i> courses	Themes	Courses	Portion⁷⁴
<i>Tongshi</i> compulsory courses	Political-ideological education	<ul style="list-style-type: none"> • The basic principles in Marxism • Maoism, Dengism and the Jiang Zemin's Thought of Three Representatives • Chinese Modern and Contemporary History • Morality and Legal Foundations • Policy study 	8.2%
	Physical and military education	<ul style="list-style-type: none"> • Physical exercises • Military theories • Military training 	5.2%
	Foreign languages	<ul style="list-style-type: none"> • College English (or other options) 	4.3%
	ICT	<ul style="list-style-type: none"> • Basic theory of computer • Programming languages (several choices) 	3.3%
<i>Tongshi</i> lower-division courses		<p>According to the lower-division programme the student is enrolled, choose from the four categories</p> <ul style="list-style-type: none"> • Mathematical and natural sciences • The humanities and social sciences • Engineering studies • Medical studies 	12%
<i>Tongshi</i> elective courses	Humanities and social sciences	<p>One course from each theme:</p> <ul style="list-style-type: none"> • History and culture • Literature and arts • Economy and society • Communication skills and leadership 	6.7%
	Sciences and technology	<p>One course from each theme:</p> <ul style="list-style-type: none"> • Sciences and research • Technology and design 	
	<i>Tongshi</i> core course (since 2010)	<p>One course from the following themes:</p> <ul style="list-style-type: none"> • Humanities and arts • Social sciences • Mathematics and natural sciences • Engineering and technology 	1.8%

⁷⁴ The portion of the subgroup on students' timetable. Altogether *tongshi* courses take up 41.5% of the student's timetable.